

G1 Cb,Hy,Ak,C,CH2

G2 H,Ak

Broad

Structure attributes must be viewed using STN Express query preparation.

=> s l1

SAMPLE SEARCH INITIATED 16:48:08 FILE 'REGISTRY'

SAMPLE SCREEN SEARCH COMPLETED - 218 TO ITERATE

100.0% PROCESSED 218 ITERATIONS

14 ANSWERS

SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**

BATCH **COMPLETE**

PROJECTED ITERATIONS: 3475 TO 5245

PROJECTED ANSWERS: 56 TO 504

L2 14 SEA SSS SAM L1

=> s l1 sss full

FULL SEARCH INITIATED 16:48:16 FILE 'REGISTRY'

FULL SCREEN SEARCH COMPLETED - 4611 TO ITERATE

100.0% PROCESSED 4611 ITERATIONS

422 ANSWERS

SEARCH TIME: 00.00.01

L3 422 SEA SSS FUL L1

=> file caplus

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

161.33

161.54

FILE 'CAPLUS' ENTERED AT 16:48:22 ON 21 DEC 2005

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FILE COVERS 1907 - 21 Dec 2005 VOL 143 ISS 26
FILE LAST UPDATED: 20 Dec 2005 (20051220/ED)

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L4 26 L3

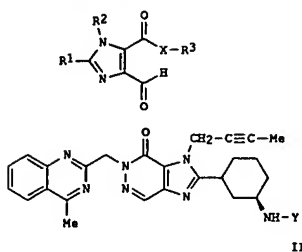
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L4 ANSWER 1 OF 26 CAPLUS COPYRIGHT 2005 ACS on STN
 ACCESSION NUMBER: 2005:124209 CAPLUS
 TITLE: Preparation of 1H-imidazo[4,5-d]pyridazin-4-ols as intermediate products for producing medicaments and pesticides
 INVENTOR(S): Eckhardt, Matthias
 PATENT ASSIGNEE(S): Boehringer Ingelheim Pharma G.m.b.H. & Co. K.-G., Germany
 SOURCE: PCT Int. Appl., 53 pp.
 DOCUMENT TYPE: CODEN: PIXXD2
 LANGUAGE: Patent
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005110999	A1	20051124	WO 2005-EP4942	20050506
W:	AB, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CI, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KR, KZ, LC, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZH, ZW			
RW:	BW, GE, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
DE 102004022970	A1	20051201	DE 2004-102004022970	20040510
US 2005261352	A1	20051124	US 2005-124798	20050509
PRIORITY APPL. INFO.:			DE 2004-102004022970A	20040510
			US 2004-576219P	P 20040602

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L4 ANSWER 1 OF 26 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

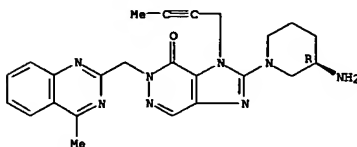


AB Title compds. I [R1 = halo; R2 = alkyl with proviso; X = O, S; R3 = H, alkyl with proviso] were prep'd as intermediates for producing medicaments or pesticides. For example, TFA mediated deprotection of Boc-amine II (Y = Boc) afforded imidazo[4,5-d]pyridazin-4-ol II (Y = H) in 89% yield.

IT 705279-98-5P 705279-97-6P 705279-98-7P
 705279-99-8P 705280-19-9P 705280-67-7P
 813462-55-4P 855789-80-9P 855789-81-9P
 855789-82-1P 869966-01-8P 869966-02-9P
 869966-03-0P 869966-04-1P 869966-05-2P
 RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (preparation of imidazo[4,5-d]pyridazin-4-ols as intermediate products for producing medicaments and pesticides)

RN 705279-98-5 CAPLUS
 CN 4H-imidazo[4,5-d]pyridazin-4-one, 2-[(3R)-3-amino-1-piperidinyl]-3-(2-butynyl)-3,5-dihydro-5-[(4-methyl-2-quinazolinyl)methyl]- (9CI) (CA INDEX NAME)

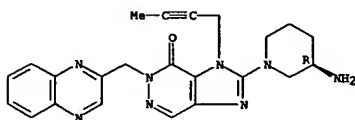
Absolute stereochemistry.



L4 ANSWER 1 OF 26 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

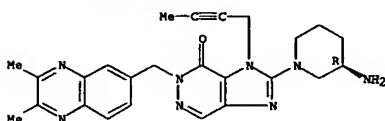
RN 705279-97-6 CAPLUS
 CN 4H-imidazo[4,5-d]pyridazin-4-one, 2-[(3R)-3-amino-1-piperidinyl]-3-(2-butynyl)-3,5-dihydro-5-[(2-quinoxaliny)methyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



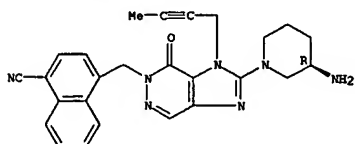
RN 705279-98-7 CAPLUS
 CN 4H-imidazo[4,5-d]pyridazin-4-one, 2-[(3R)-3-amino-1-piperidinyl]-3-(2-butynyl)-5-[(2,3-dimethyl-6-quinoxaliny)methyl]-3,5-dihydro- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 705279-99-8 CAPLUS
 CN 1-Naphthalenecarbonitrile, 4-[[2-[(3R)-3-amino-1-piperidinyl]-3-(2-butynyl)-3,5-dihydro-4-oxo-5H-imidazo[4,5-d]pyridazin-5-yl)methyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

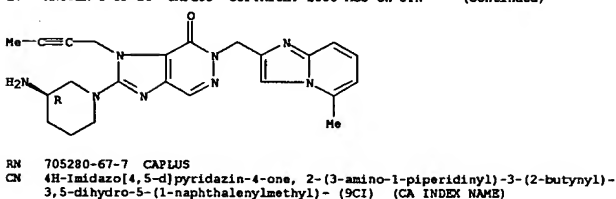


RN 705280-19-9 CAPLUS
 CN 4H-imidazo[4,5-d]pyridazin-4-one, 2-[(3R)-3-amino-1-piperidinyl]-3-(2-butynyl)-3,5-dihydro-5-[(5-methylimidazo[1,2-a]pyridin-2-yl)methyl]- (9CI) (CA INDEX NAME)

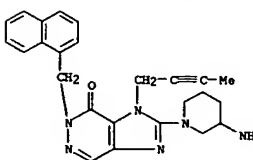
Absolute stereochemistry.

<12/21/2005>

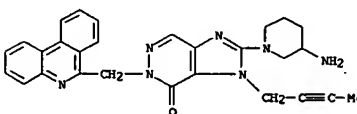
L4 ANSWER 1 OF 26 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



RN 705280-67-7 CAPLUS
 CN 4H-imidazo[4,5-d]pyridazin-4-one, 2-[(3R)-3-amino-1-piperidinyl]-3-(2-butynyl)-3,5-dihydro-5-[(1-naphthalenyl)methyl]- (9CI) (CA INDEX NAME)



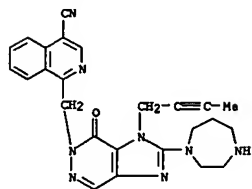
RN 813462-55-4 CAPLUS
 CN 4H-imidazo[4,5-d]pyridazin-4-one, 2-[(3R)-3-amino-1-piperidinyl]-3-(2-butynyl)-3,5-dihydro-5-[(6-phenanthridinyl)methyl]- (9CI) (CA INDEX NAME)



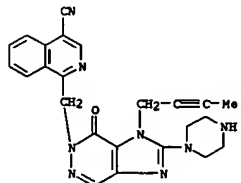
RN 855789-80-9 CAPLUS
 CN 4-isoquinolinecarbonitrile, 1-[[3-(2-butynyl)-2-(hexahydro-1H-1,4-diazepin-1-yl)-3,4-dihydro-4-oxo-5H-imidazo[4,5-d]pyridazin-5-yl)methyl]- (9CI) (CA INDEX NAME)

Habe

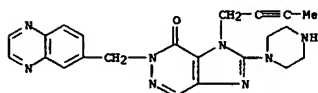
L4 ANSWER 1 OF 26 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



RN 855789-81-0 CAPLUS
 CN 4-Isoquinolinecarbonitrile, 1-[(3-(2-butynyl)-3,4-dihydro-4-oxo-2-(1-piperazinyl)-5H-imidazo[4,5-d]pyridazin-5-yl)methyl]- (9CI) (CA INDEX NAME)



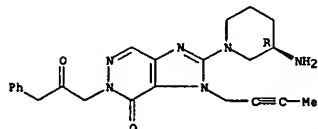
RN 855789-82-1 CAPLUS
 CN 4H-imidazo[4,5-d]pyridazin-4-one, 3-(2-butynyl)-3,5-dihydro-2-(1-piperazinyl)-5-(6-quinoxalinylmethyl)- (9CI) (CA INDEX NAME)



RN 869966-01-8 CAPLUS
 CN INDEX NAME NOT YET ASSIGNED

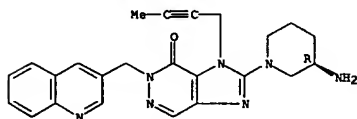
Absolute stereochemistry.

L4 ANSWER 1 OF 26 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



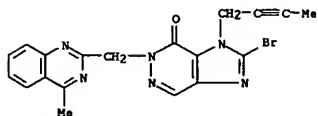
RN 869966-05-2 CAPLUS
 CN INDEX NAME NOT YET ASSIGNED

Absolute stereochemistry.



IT 705280-63-3P 869966-08-5P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (preparation of imidazo[4,5-d]pyridazin-4-ols as intermediate products for producing medicaments and pesticides)

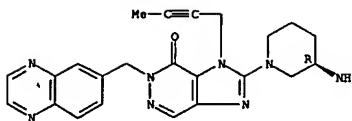
RN 705280-63-3 CAPLUS
 CN 4H-imidazo[4,5-d]pyridazin-4-one, 2-bromo-3-(2-butynyl)-3,5-dihydro-5-[(4-methyl-2-quinazolinyl)methyl]- (9CI) (CA INDEX NAME)



RN 869966-08-5 CAPLUS
 CN INDEX NAME NOT YET ASSIGNED

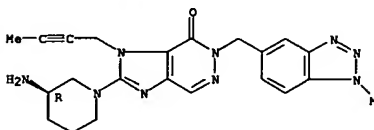
Absolute stereochemistry.

L4 ANSWER 1 OF 26 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



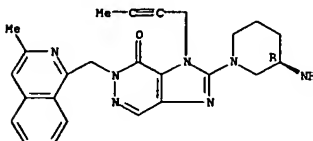
RN 869966-02-9 CAPLUS
 CN INDEX NAME NOT YET ASSIGNED

Absolute stereochemistry.



RN 869966-03-0 CAPLUS
 CN INDEX NAME NOT YET ASSIGNED

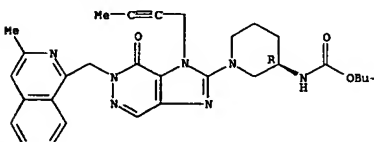
Absolute stereochemistry.



RN 869966-04-1 CAPLUS
 CN INDEX NAME NOT YET ASSIGNED

Absolute stereochemistry.

L4 ANSWER 1 OF 26 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 2 OF 26 CAPLUS COPYRIGHT 2005 ACS on STN
 ACCESSION NUMBER: 2005:1130640 CAPLUS
 DOCUMENT NUMBER: 143:387050

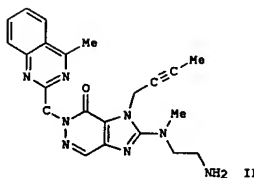
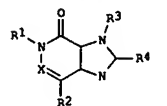
TITLE: Preparation of aminoimidazo[4,5-d]pyridazinones and aminoimidazo[4,5-c]pyridazinones as inhibitors of dipeptidylpeptidase IV
 INVENTOR(S): Eckhardt, Matthias; Himmelsbach, Frank; Langkopf, Elke; Haeu, Norbert; Tadayyon, Mohammad; Thomas, Leo
 PATENT ASSIGNEE(S): Boehringer Ingelheim International G.m.b.H., Germany; Boehringer Ingelheim Pharma G.m.b.H. & Co. K.-G.
 SOURCE: PCT Int. Appl., 63 pp.
 CODEN: PIXX02

DOCUMENT TYPE: Patent
 LANGUAGE: German
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005097799	A1	20051020	WO 2005-EP3474	20050402
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZN, ZW				
RV: BW, GH, GM, KE, LS, MW, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TH, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
DE 102004017739	A1	20051027	DE 2004-102004017739	20040410
US 2005234235	A1	20051020	US 2005-102048	20050408
PRIORITY APPLN. INFO.:			DE 2004-102004017739A	20040410
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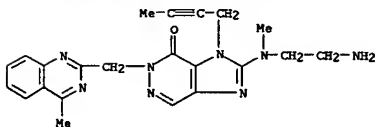
L4 ANSWER 2 OF 26 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



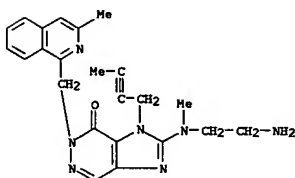
AB Title comps. I [R1 = arylmethyl, aryloethyl, heteroarylmethyl, etc.; X = N or CR5; R5 = H or alkyl; R2 = H, aryl, heteroaryl, etc.; R3 = (un)substituted cycloalkenylmethyl, alkenyl, alkynyl, etc.; R4 = NR6R7; R6 = H, alkyl, cycloalkyl, etc.; R7 = (un)substituted alkyl-R8; R8 = amino or alkylamino] and their pharmaceutically acceptable salts, are prepared and disclosed as inhibitors of dipeptidylpeptidase IV (DPP-IV). Thus, e.g., II was prepared by amination of 2-bromo-3-(2-buten-1-yl)-5-[(4-methyl-quinazolin-2-yl)-methyl]-3,5-dihydro[4,5-d]pyridazin-4-one (preparation given) with N-methyl-ethylenediamine. The activity of I was evaluated using fluorescence inhibition assays and it was revealed that selected compounds of the invention possessed IC50 values in the range of 1 up to 336 nM. I as inhibitor of DPP-IV should prove useful in the treatment of diseases such as but not limited to diabetes, obesity and arthritis.

Pharmaceutical comps. comprising I are disclosed.
 IT 866933-11-1P 866933-12-2P 866933-14-4P
 866933-15-8P 866933-16-6P 866933-17-7P
 RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (preparation of aminoimidazo[4,5-d]pyridazinones and aminoimidazo[4,5-d]pyridazinones as inhibitors of dipeptidylpeptidase IV)
 RN 866933-11-1 CAPLUS
 CN 4H-imidazo[4,5-d]pyridazin-4-one, 2-[(2-aminoethyl)methylamino]-3-(2-butynyl)-3,5-dihydro-5-[(4-methyl-2-quinazolinyl)methyl]- (9CI) (CA INDEX NAME)

L4 ANSWER 2 OF 26 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

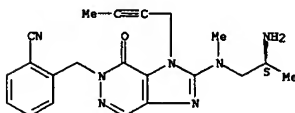


RN 866933-12-2 CAPLUS
 CN 4H-imidazo[4,5-d]pyridazin-4-one, 2-[(2-aminoethyl)methylamino]-3-(2-butynyl)-3,5-dihydro-5-[(3-methyl-1-isoquinolinyl)methyl]- (9CI) (CA INDEX NAME)



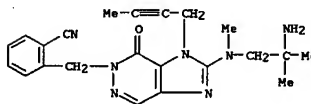
RN 866933-14-4 CAPLUS
 CN Benzonitrile, 2-[[2-[(2S)-2-aminopropyl]methylamino]-3-(2-butynyl)-3,4-dihydro-4-oxo-5H-imidazo[4,5-d]pyridazin-5-yl]methyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



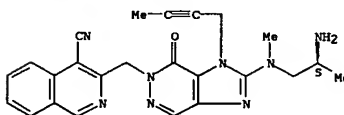
RN 866933-15-5 CAPLUS
 CN Benzonitrile, 2-[[2-[(2-amino-2-methylpropyl)methylamino]-3-(2-butynyl)-3,4-dihydro-4-oxo-5H-imidazo[4,5-d]pyridazin-5-yl]methyl]- (9CI) (CA INDEX NAME)

L4 ANSWER 2 OF 26 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



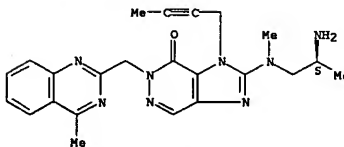
RN 866933-16-6 CAPLUS
 CN 4-Isoquinolinacarbonitrile, 3-[[2-[(2S)-2-aminopropyl]methylamino]-3-(2-butynyl)-3,4-dihydro-4-oxo-5H-imidazo[4,5-d]pyridazin-5-yl]methyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 866933-17-7 CAPLUS
 CN 4H-imidazo[4,5-d]pyridazin-4-one, 2-[[[(2S)-2-aminopropyl]methylamino]-3-(2-butynyl)-3,5-dihydro-5-[(4-methyl-2-quinazolinyl)methyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

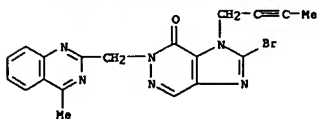


IT 705280-63-3P 866933-18-8P 866933-19-9P
 866933-20-2P 866933-21-3P 866933-22-4P
 866933-23-5P 866933-24-6P 866933-25-7P
 866933-26-8P 866933-27-9P 866933-28-0P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (preparation of aminoimidazo[4,5-d]pyridazinones and aminoimidazo[4,5-d]pyridazinones as inhibitors of dipeptidylpeptidase IV)
 RN 705280-63-3 CAPLUS
 CN 4H-imidazo[4,5-d]pyridazin-4-one, 2-bromo-3-(2-butynyl)-3,5-dihydro-5-[(4-methyl-2-quinazolinyl)methyl]- (9CI) (CA INDEX NAME)

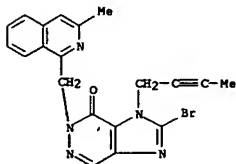
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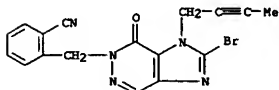
L4 ANSWER 2 OF 26 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



RN 866933-18-8 CAPLUS
CN 4R-Imidazo[4,5-d]pyridazin-4-one, 2-bromo-3-(2-butynyl)-3,5-dihydro-5-[(3-methyl-1-isoquinolinyl)methyl]- (9CI) (CA INDEX NAME)

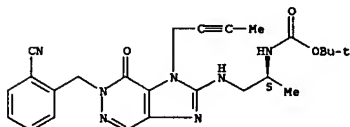


RN 866933-19-9 CAPLUS
CN Benzonitrile, 2-[[[2-bromo-3-(2-butynyl)-3,4-dihydro-4-oxo-5H-imidazo[4,5-d]pyridazin-5-yl]methyl]- (9CI) (CA INDEX NAME)

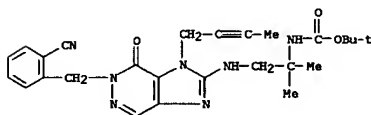


RN 866933-20-2 CAPLUS
CN 4-Isoquinolinecarbonitrile, 3-[[[2-bromo-3-(2-butynyl)-3,4-dihydro-4-oxo-5H-imidazo[4,5-d]pyridazin-5-yl]methyl]- (9CI) (CA INDEX NAME)

L4 ANSWER 2 OF 26 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

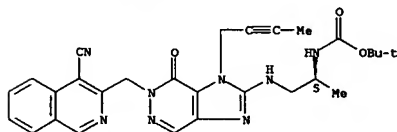


RN 866933-24-6 CAPLUS
CN Carbanic acid, [2-[[[1-(2-butynyl)-6-[(2-cyanophenyl)methyl]-6,7-dihydro-7-oxo-1H-imidazo[4,5-d]pyridazin-2-yl]amino]-1,1-dimethylethyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



RN 866933-25-7 CAPLUS
CN Carbanic acid, [2-[[[1-(2-butynyl)-6-[(4-cyano-3-isoquinolinyl)methyl]-6,7-dihydro-7-oxo-1H-imidazo[4,5-d]pyridazin-2-yl]amino]-1-methylethyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

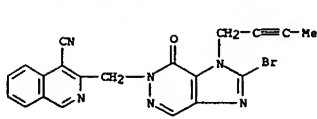
Absolute stereochemistry.



RN 866933-26-8 CAPLUS
CN Carbanic acid, [2-[[[1-(2-butynyl)-6-[(2-cyanophenyl)methyl]-6,7-dihydro-7-oxo-1H-imidazo[4,5-d]pyridazin-2-yl]amino]-1-methylethyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

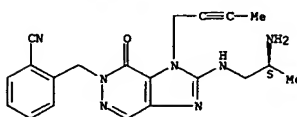
Absolute stereochemistry.

L4 ANSWER 2 OF 26 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



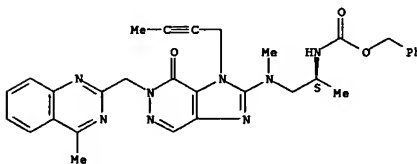
RN 866933-21-3 CAPLUS
CN Benzonitrile, 2-[[[2-[[[2-(2-aminopropyl)amino]-3-(2-butynyl)-3,4-dihydro-4-oxo-5H-imidazo[4,5-d]pyridazin-5-yl]methyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 866933-22-4 CAPLUS
CN Carbanic acid, [2-[[[1-(2-butynyl)-6,7-dihydro-6-[(4-methyl-2-quinazolinyl)methyl]-7-oxo-1H-imidazo[4,5-d]pyridazin-2-yl]methylamino]-1-methylethyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

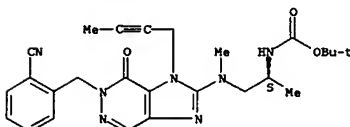
Absolute stereochemistry.



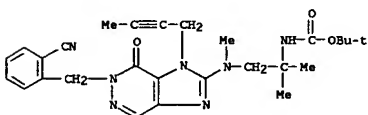
RN 866933-23-5 CAPLUS
CN Carbanic acid, [2-[[[1-(2-butynyl)-6-[(2-cyanophenyl)methyl]-6,7-dihydro-7-oxo-1H-imidazo[4,5-d]pyridazin-2-yl]amino]-1-methylethyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

L4 ANSWER 2 OF 26 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

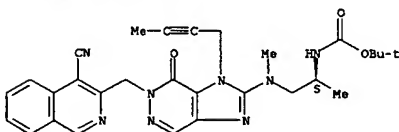


RN 866933-27-9 CAPLUS
CN Carbanic acid, [2-[[[1-(2-butynyl)-6-[(2-cyanophenyl)methyl]-6,7-dihydro-7-oxo-1H-imidazo[4,5-d]pyridazin-2-yl]methylamino]-1,1-dimethylethyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



RN 866933-28-0 CAPLUS
CN Carbanic acid, [2-[[[1-(2-butynyl)-6-[(4-cyano-3-isoquinolinyl)methyl]-6,7-dihydro-7-oxo-1H-imidazo[4,5-d]pyridazin-2-yl]methylamino]-1-methylethyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



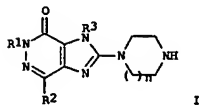
REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

<12/21/2005>

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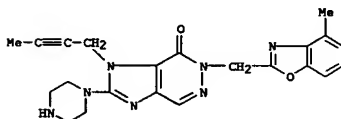
L4 ANSWER 3 OF 26 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2005:570898 CAPLUS
DOCUMENT NUMBER: 143:78214
TITLE: Preparation of (homo)piperazinylimidazoxyridazinones
for treatment of diabetes mellitus.
INVENTOR(S): Himmelsbach, Frank; Huel, Norbert; Langkopf, Elke;
Eckhardt, Matthias; Kauffmann-Hefner, Iris; Tadayyon,
Mohammadi; Thomas, Leo
PATENT ASSIGNEE(S): Boehringer Ingelheim International G.m.b.H., Germany;
Boehringer Ingelheim Pharma G.m.b.H. & Co. KG
SOURCE: PCT Int. Appl., 57 pp.
CODEN: P1XXD2
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE	
WO 200508901	A1	20050630	WO 2004-EP14125	2004/1211	
V:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, LC, LK, LR, LS, LT, LV, LU, MA, MD, MK, MN, MW, MX, MZ, NA, NI, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TN, TR, TT, TZ, UA, UG, US, UZ, VU, VN, YU, ZA, ZM, ZW				
	AE, BY, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BG, CF, CG, CI, CM, CA, GM, GW, GN, HL				
	DE 10359098	A1	20050728	DE 2003-10359098	2003/1217
	US 2005171093	A1	20050804	US 2004-16176	2004/1217
	PRIORITY APPL. INFO.:		DE 2003-10359098	A	2003/1217
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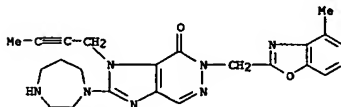


AB Title compds. [R1 = (substituted) heteroarylalkyl, naphthylalkyl; R2 = H, Me; R3 = 2-butenyl-1-yl, 1-buten-1-yl, 2-buten-1-yl, 3-methyl-2-buten-1-yl], were prepared. Thus, 2-bromo-3-(2-butenyl-1-yl)-5-[(4-methylquinazolin-2-yl)methyl]-3,5-dihydroimidazo[4,5-d]pyridazin-4-one (preparation given) and piperazine were microwave in DMF at 200° for 5 min. to give 51% 2-(piperazin-1-yl)-3-(2-butenyl-1-yl)-5-[(4-methylquinazolin-2-yl)methyl]-

L4 ANSWER 3 OF 26 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



RN 855789-40-1 CAPLUS
CN 4R-Imidazo[4,5-d]pyridazin-4-one, 3-(2-butynyl)-2-(hexahydro-1H-1,4-diazepin-1-yl)-3,5-dihydro-5-[(4-methyl-2-benzoxazolyl)methyl]- (9CI) (CA INDEX NAME)



TR

855789-60-5P, 2-[(1,4)Diazepan-1-yl]-3-(2-butyn-1-yl)-5-{[2,3,8-trimethyl-quinoxalin-6-yl)methyl]-3,5-dihydro-imidazo[4,5-d]pyridazin-4-one **855789-61-6P**, 2-[(1,4)Diazepan-1-yl]-3-(2-butyn-1-yl)-5-{[4-cyano-naphthalin-1-yl)methyl]-3,5-dihydro-imidazo[4,5-d]pyridazin-4-one **855789-62-7P**, 2-(*P*-iperazin-1-yl)-3-(2-butyn-1-yl)-5-{[4-cyano-naphthalin-1-yl)methyl]-3,5-dihydro-imidazo[4,5-d]pyridazin-4-one **855789-63-8P**, 2-(*P*-iperazin-1-yl)-3-(2-butyn-1-yl)-5-{[4-fluoro-naphthalin-1-yl)methyl]-3,5-dihydro-imidazo[4,5-d]pyridazin-4-one **855789-64-9P**, 2-[(1,4)Diazepan-1-yl]-3-(2-butyn-1-yl)-5-{[4-fluoro-naphthalin-1-yl)methyl]-3,5-dihydro-imidazo[4,5-d]pyridazin-4-one **855789-65-0P**, 2-(*P*-iperazin-1-yl)-3-(2-butyn-1-yl)-5-{[4-bromo-naphthalin-1-yl)methyl]-3,5-dihydro-imidazo[4,5-d]pyridazin-4-one **855789-66-1P**, 2-[(1,4)Diazepan-1-yl]-3-(2-butyn-1-yl)-5-{[4-bromo-naphthalin-1-yl)methyl]-3,5-dihydro-imidazo[4,5-d]pyridazin-4-one **855789-67-2P**, 2-(*P*-iperazin-1-yl)-3-(2-butyn-1-yl)-5-{[(1,2,4)triazolo[4,5-d]pyrididin-3-yl)methyl]-3,5-dihydro-imidazo[4,5-d]pyridazin-4-one **855789-68-3P**, 2-(*P*-iperazin-1-yl)-3-(2-butyn-1-yl)-5-{(1-methyl-1*H*-benzotriazol-5-yl)methyl}-3,5-dihydro-imidazo[4,5-d]pyridazin-4-one **855789-69-4P**, 2-[(1,4)Diazepan-1-yl]-3-(2-butyn-1-yl)-5-{[(1-methyl-1*H*-benzotriazol-5-yl)methyl]-3,5-dihydro-imidazo[4,5-d]pyridazin-4-one **855789-70-5P**, 2-[(1,4)Diazepan-1-yl]-3-(2-butyn-1-yl)-5-{[(1-methyl-1*H*-benzotriazol-5-yl)methyl]-3,5-dihydro-imidazo[4,5-d]pyridazin-4-one **855789-71-8P**, 2-[(1,4)Diazepan-1-yl]-3-(2-butyn-1-yl)-5-{[(1,2,4)triazolo[4,3-*a*]pyrididin-3-yl)methyl]-3,5-dihydro-imidazo[4,5-d]pyridazin-4-one **855789-73-0P**, 2-(*P*-iperazin-1-yl)-3-(2-butyn-1-yl)-5-{[4-methyl-pyridin-2-yl)methyl]-3,5-dihydro-imidazo[4,5-d]pyridazin-4-one **855789-74-1P**, 2-[(1,4)Diazepan-1-yl]-3-(2-butyn-1-yl)-5-{[4-methyl-pyridin-2-yl)methyl]-3,5-dihydro-imidazo[4,5-d]pyridazin-4-one **855789-75-2P**, 2-(*P*-iperazin-1-yl)-3-(2-butyn-1-yl)-5-{[3-methyl-isooquinolin-1-yl)methyl]-3,5-dihydro-imidazo[4,5-d]pyridazin-4-one **855789-76-3P**, 2-(*P*-iperazin-1-yl)-3-(2-butyn-1-yl)-5-{[3-methyl-isooquinolin-1-yl)methyl]-3,5-dihydro-imidazo[4,5-d]pyridazin-4-one **855789-77-4P**, 2-(*P*-iperazin-1-yl)-3-(2-butyn-1-yl)-5-{[3-methyl-isooquinolin-1-yl)methyl]-3,5-dihydro-imidazo[4,5-d]pyridazin-4-one **855789-78-5P**, 2-[(1,4)Diazepan-1-yl]-3-(2-butyn-1-yl)-5-{[3-methyl-isooquinolin-1-yl)methyl]-3,5-dihydro-imidazo[4,5-d]

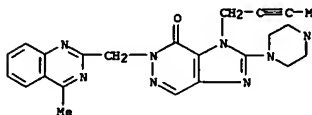
<12/21/2005>

L4 ANSWER 3 of 26 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
3,5-dihydroimidazo[4,5-d]pyridazin-4-one. The latter inhibited
dipeptidyl peptidase-IV with IC50 = 5 nM.
IF 855789-37-69, 2-(Piperazin-1-yl)-3-(2-buten-1-yl)-5-(((4-methyl-
quinazolin-2-yl)methyl)-3,5-dihydro-imidazo[4,5-d]pyridazin-4-one
855789-38-70, 2-((1,4)Oxazepan-1-yl)-3-(2-buten-1-yl)-5-(((4-methyl-
quinazolin-2-yl)methyl)-3,5-dihydro-imidazo[4,5-d]pyridazin-4-one
855789-39-80, 2-(Piperazin-1-yl)-3-(2-buten-1-yl)-5-(((4-methyl-
benzoxazolin-2-yl)methyl)-3,5-dihydro-imidazo[4,5-d]pyridazin-4-one
855789-40-18, 2-((1,4)Oxazepan-1-yl)-3-(2-buten-1-yl)-5-(((4-methyl-
benzoxazolin-2-yl)methyl)-3,5-dihydro-imidazo[4,5-d]pyridazin-4-one
RL: PAC (Pharmacological activity), SPN (Synthetic preparation), THU
(Therapeutic use), BIOL (Biological study), PREP (Preparation), USBS
(Uses)
(claimed compound; preparation of (homo)piperazinylimidazozyridazinones

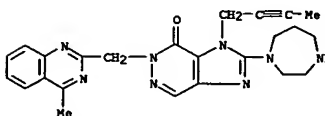
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for      (treatment compound preparation of (name, piperazine, imidazole, indolones
      treatment of diabetes mellitus)
RN      855789-37-6 CAPLUS
CN      4R-Imidazo[4,5-d]pyridazin-4-one, 3-(2-butynyl)-3,5-dihydro-5-[(4-methyl-2-
      quinazolinyl)methyl]-2-(1-piperazinyl)- (9CI) (CA INDEX NAME)

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RN 855789-38-7 CAPLUS
CN 4H-imidazo[4,5-d]pyridazin-4-one, 3-(2-butynyl)-2-(hexahydro-1H-1,4-diazepin-1-yl)-3,5-dihydro-5-({4-methyl-2-quinazolinyl)methyl}- (9CI) (CA IMAZEPAM NAME)

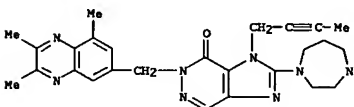


RN 855789-39-8 CAPLUS
CN 4H-Imidazo[4,5-d]pyridazin-4-one, 3-(2-butynyl)-3,5-dihydro-5-[(4-methyl-2-benzoxazolyl)methyl]-2-(1-piperazinyl)- (9CI) (CA INDEX NAME)

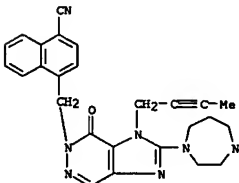
L4 ANSWER 3 OF 26 CAPLUS COPYRIGHT 2005 ACS ON STN (Continued)
d)pyridazin-4-one 855789-79-6P, 2-([1,4]Diazepan-1-yl)-3-(2-
butyn-1-yl)-5-[(1,5-naphthyrin-2-yl)methyl]-3,5-dihydro-imidazo-[4,5-
d]pyridazin-4-one 855789-80-9P, 2-([1,4]Diazepan-1-yl)-3-(2-
butyn-1-yl)-5-[(4-cyano-isooquinolin-1-yl)methyl]-3,5-dihydro-imidazo-[4,5-
d]pyridazin-4-one 855789-81-0P, 2-(Piperazin-1-yl)-3-(2-Butyn-1-
yl)-5-[(4-cyano-isooquinolin-1-yl)methyl]-3,5-dihydro-imidazo-[4,5-
d]pyridazin-4-one 855789-82-1P, 2-(Piperazin-1-yl)-3-(2-Butyn-1-
yl)-5-[(quinoxalin-6-yl)methyl]-3,5-dihydro-imidazo-[4,5-d]pyridazin-4-one
855789-83-2P, 2-(Piperazin-1-yl)-3-(2-Butyn-1-yl)-5-[(2,3,8-
trimethyl-quinoxalin-6-yl)methyl]-3,5-dihydro-imidazo-[4,5-d]pyridazin-4-
one

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU
(Therapeutic use); BIOL (Biological study); PREP (Preparation); USES
(Uses)

	(prepn. of (homo)piperazinyimidazoxyridazinones for treatment of diabetes mellitus)
RN	855789-60-5 CAPLUS
CN	4H-Imidazo[4,5-d]pyridazin-4-one, 3-(2-butynyl)-2-(hexahydro-1H-1,4-diazepin-1-yl)-3,5-dihydro-5-((2,3,8-trimethyl-6-quinoxalyl)methyl)-(9CI) (CA INDEX NAME)



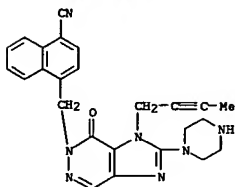
RN 855789-61-6 CAPLUS
CN 1-Naphthalenecarbonitrile, 4-[[3-(2-butynyl)-2-(hexahydro-1H-1,4-diazepin-1-yl)-3,4-dihydro-4-oxo-5H-imidazo[4,5-d]pyridazin-5-yl]methyl]- (9CI)
(CA INDEX NAME)



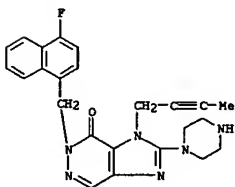
RN 855789-62-7 CAPIUS
CN 1-Naphthalenecarbonitrile, 4-[[3-(2-butynyl)-3,4-dihydro-4-oxo-2-(1-piperazinyl)-5H-imidazo[4,5-d]pyridazin-5-yl)methyl]- (9CI) (CA INDEX NAME)

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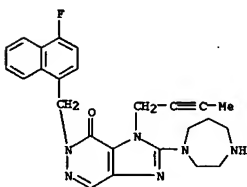
L4 ANSWER 3 OF 26 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



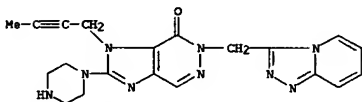
RN 855789-63-8 CAPLUS
 CN 4H-imidazo[4,5-d]pyridazin-4-one, 3-(2-butynyl)-5-[(4-fluoro-1-naphthalenyl)methyl]-3,5-dihydro-2-(1-piperazinyl)- (9CI) (CA INDEX NAME)



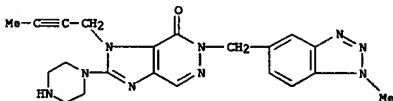
RN 855789-64-9 CAPLUS
 CN 4H-imidazo[4,5-d]pyridazin-4-one, 3-(2-butynyl)-5-[(4-fluoro-1-naphthalenyl)methyl]-2-(hexahydro-1H-1,4-diazepin-1-yl)-3,5-dihydro- (9CI) (CA INDEX NAME)



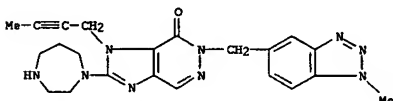
L4 ANSWER 3 OF 26 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



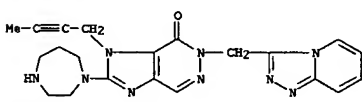
RN 855789-68-3 CAPLUS
 CN 4H-imidazo[4,5-d]pyridazin-4-one, 3-(2-butynyl)-3,5-dihydro-5-[(1-methyl-1H-benzotriazol-5-yl)methyl]-2-(1-piperazinyl)- (9CI) (CA INDEX NAME)



RN 855789-69-4 CAPLUS
 CN 4H-imidazo[4,5-d]pyridazin-4-one, 3-(2-butynyl)-2-(hexahydro-1H-1,4-diazepin-1-yl)-3,5-dihydro-5-[(1-methyl-1H-benzotriazol-5-yl)methyl]- (9CI) (CA INDEX NAME)



RN 855789-71-8 CAPLUS
 CN 4H-imidazo[4,5-d]pyridazin-4-one, 3-(2-butynyl)-2-(hexahydro-1H-1,4-diazepin-1-yl)-3,5-dihydro-5-[(1,2,4-triazolo[4,3-a]pyridin-3-yl)methyl]- (9CI) (CA INDEX NAME)

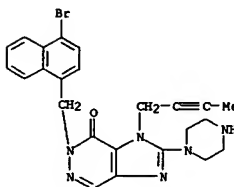


RN 855789-73-0 CAPLUS
 CN 4H-imidazo[4,5-d]pyridazin-4-one, 3-(2-butynyl)-3,5-dihydro-5-[(4-methyl-2-pyridinyl)methyl]-2-(1-piperazinyl)- (9CI) (CA INDEX NAME)

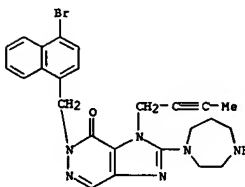
<12/21/2005>

L4 ANSWER 3 OF 26 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

RN 855789-65-0 CAPLUS
 CN 4H-imidazo[4,5-d]pyridazin-4-one, 5-[(4-bromo-1-naphthalenyl)methyl]-3-(2-butynyl)-3,5-dihydro-2-(1-piperazinyl)- (9CI) (CA INDEX NAME)

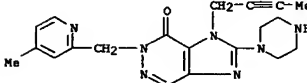


RN 855789-66-1 CAPLUS
 CN 4H-imidazo[4,5-d]pyridazin-4-one, 5-[(4-bromo-1-naphthalenyl)methyl]-3-(2-butynyl)-2-(hexahydro-1H-1,4-diazepin-1-yl)-3,5-dihydro- (9CI) (CA INDEX NAME)

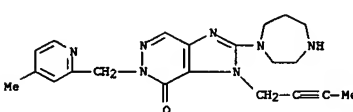


RN 855789-67-2 CAPLUS
 CN 4H-imidazo[4,5-d]pyridazin-4-one, 3-(2-butynyl)-3,5-dihydro-2-(1-piperazinyl)-5-[(1,2,4-triazolo[4,3-a]pyridin-3-yl)methyl]- (9CI) (CA INDEX NAME)

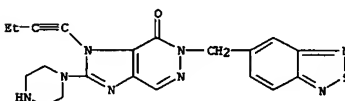
L4 ANSWER 3 OF 26 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



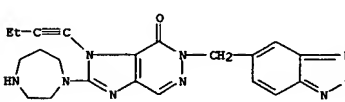
RN 855789-74-1 CAPLUS
 CN 4H-imidazo[4,5-d]pyridazin-4-one, 3-(2-butynyl)-2-(hexahydro-1H-1,4-diazepin-1-yl)-3,5-dihydro-5-[(4-methyl-2-pyridinyl)methyl]- (9CI) (CA INDEX NAME)



RN 855789-75-2 CAPLUS
 CN 4H-imidazo[4,5-d]pyridazin-4-one, 5-(2,1,3-benzothiadiazol-5-ylmethyl)-3-(1-butynyl)-3,5-dihydro-2-(1-piperazinyl)- (9CI) (CA INDEX NAME)



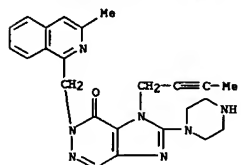
RN 855789-76-3 CAPLUS
 CN 4H-imidazo[4,5-d]pyridazin-4-one, 5-(2,1,3-benzothiadiazol-5-ylmethyl)-3-(1-butynyl)-2-(hexahydro-1H-1,4-diazepin-1-yl)-3,5-dihydro- (9CI) (CA INDEX NAME)



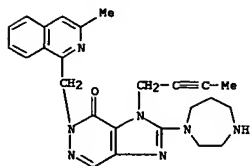
RN 855789-77-4 CAPLUS
 CN 4H-imidazo[4,5-d]pyridazin-4-one, 3-(2-butynyl)-3,5-dihydro-5-[(3-methyl-1-isoquinolinyl)methyl]-2-(1-piperazinyl)- (9CI) (CA INDEX NAME)

Habte

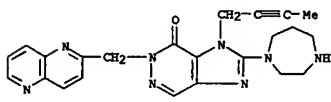
L4 ANSWER 3 OF 26 CAPLUS COPYRIGHT 2005 ACS ON STN (Continued)



RN 855789-78-5 CAPLUS
CN 4H-imidazo[4,5-d]pyridazin-4-one, 3-(2-butynyl)-2-(hexahydro-1H-1,4-diazepin-1-yl)-3,5-dihydro-5-[(3-methyl-1-isoquinolinyl)methyl]- (9CI) (CA INDEX NAME)

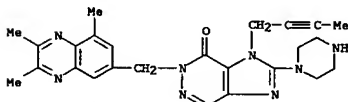


RN 855789-79-6 CAPLUS
CN 4H-imidazo[4,5-d]pyridazin-4-one, 3-(2-butynyl)-2-(hexahydro-1H-1,4-diazepin-1-yl)-3,5-dihydro-5-[(1,5-naphthyridin-2-yl)methyl]- (9CI) (CA INDEX NAME)



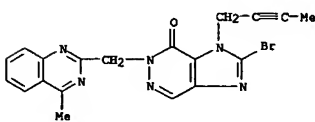
RN 855789-80-9 CAPLUS
CN 4-isoquinolinecarbonitrile, 1-[[3-(2-butynyl)-2-(hexahydro-1H-1,4-diazepin-1-yl)-3,5-dihydro-4-oxo-5H-imidazo[4,5-d]pyridazin-5-yl]methyl]- (9CI) (CA INDEX NAME)

L4 ANSWER 3 OF 26 CAPLUS COPYRIGHT 2005 ACS ON STN (Continued)



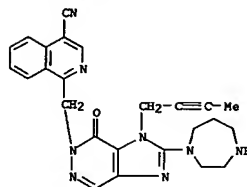
IT 705280-63-3P, 2-Bromo-3-(2-butynyl)-5-[(4-methyl-quinazolin-2-yl)methyl]-3,5-dihydro-imidazo[4,5-d]pyridazin-4-one 855789-41-2P, 2-(4-tert-butoxycarbonyl-piperazin-1-yl)-3-(2-butynyl)-5-[(2,3,8-trimethyl-quinoxalin-6-yl)methyl]-3,5-dihydro-imidazo[4,5-d]pyridazin-4-one 855789-42-3P, 2-Bromo-3-(butyn-1-yl)-5-[(4-cyano-naphthalin-1-yl)methyl]-3,5-dihydro-imidazo[4,5-d]pyridazin-4-one 855789-43-4P, 2-Bromo-3-(butyn-1-yl)-5-[(4-bromo-naphthalin-1-yl)methyl]-3,5-dihydro-imidazo[4,5-d]pyridazin-4-one 855789-44-5P, 2-Bromo-3-(butyn-1-yl)-5-[(4-methyl-benzoxazol-2-yl)methyl]-3,5-dihydro-imidazo[4,5-d]pyridazin-4-one 855789-45-6P, 2-Bromo-3-(butyn-1-yl)-5-[(1,2,4-triazolo[4,3-a]pyridin-3-yl)methyl]-3,5-dihydro-imidazo[4,5-d]pyridazin-4-one 855789-46-7P, 2-Bromo-3-(butyn-1-yl)-5-[(1-methyl-1H-benzotriazol-5-yl)methyl]-3,5-dihydro-imidazo[4,5-d]pyridazin-4-one 855789-47-8P, 2-Bromo-3-(butyn-1-yl)-5-[(4-methyl-pyridin-2-yl)methyl]-3,5-dihydro-imidazo[4,5-d]pyridazin-4-one 855789-48-9P, 2-Bromo-3-(butyn-1-yl)-5-[(3-methyl-isoquinolin-1-yl)methyl]-3,5-dihydro-imidazo[4,5-d]pyridazin-4-one 855789-50-3P, 2-Bromo-3-(butyn-1-yl)-5-[(1,5-naphthyridin-2-yl)methyl]-3,5-dihydro-imidazo[4,5-d]pyridazin-4-one 855789-51-4P, 2-Bromo-3-(butyn-1-yl)-5-[(4-cyano-isoquinolin-1-yl)methyl]-3,5-dihydro-imidazo[4,5-d]pyridazin-4-one 855789-52-5P, 2-Bromo-3-(butyn-1-yl)-5-[[quinoxalin-6-yl)methyl]-3,5-dihydro-imidazo[4,5-d]pyridazin-4-one R: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent) (preparation of (homo)piperazinylimidazopyridazinones for treatment of diabetes mellitus)

RN 705280-63-3 CAPLUS
CN 4H-imidazo[4,5-d]pyridazin-4-one, 2-bromo-3-(2-butynyl)-3,5-dihydro-5-[(4-methyl-2-quinazolinyl)methyl]- (9CI) (CA INDEX NAME)

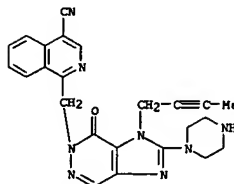


RN 855789-41-2 CAPLUS
CN 1-Piperazinecarboxylic acid, 4-[1-(2-butynyl)-6,7-dihydro-7-oxo-6-[(2,3,8-trimethyl-6-quinoxaliny)methyl]-1H-imidazo[4,5-d]pyridazin-2-yl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

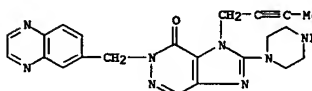
L4 ANSWER 3 OF 26 CAPLUS COPYRIGHT 2005 ACS ON STN (Continued)



RN 855789-81-0 CAPLUS
CN 4-isoquinolinecarbonitrile, 1-[[3-(2-butynyl)-3,4-dihydro-4-oxo-2-(1-piperazinyl)-5H-imidazo[4,5-d]pyridazin-5-yl]methyl]- (9CI) (CA INDEX NAME)

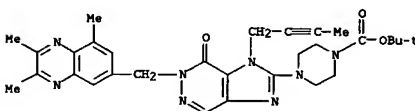


RN 855789-82-1 CAPLUS
CN 4H-imidazo[4,5-d]pyridazin-4-one, 3-(2-butynyl)-3,5-dihydro-2-(1-piperazinyl)-5-(6-quinoxaliny)methyl]- (9CI) (CA INDEX NAME)

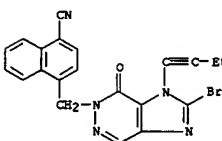


RN 855789-83-2 CAPLUS
CN 4H-imidazo[4,5-d]pyridazin-4-one, 3-(2-butynyl)-3,5-dihydro-2-(1-piperazinyl)-5-[(2,3,8-trimethyl-6-quinoxaliny)methyl]- (9CI) (CA INDEX NAME)

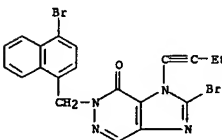
L4 ANSWER 3 OF 26 CAPLUS COPYRIGHT 2005 ACS ON STN (Continued)



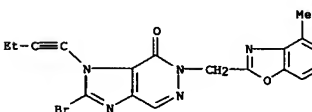
RN 955789-42-3 CAPLUS
CN 1-Naphthalenecarbonitrile, 4-[[2-bromo-3-(1-butynyl)-3,4-dihydro-4-oxo-5H-imidazo[4,5-d]pyridazin-5-yl]methyl]- (9CI) (CA INDEX NAME)



RN 955789-43-4 CAPLUS
CN 4H-imidazo[4,5-d]pyridazin-4-one, 2-bromo-5-[(4-bromo-1-naphthalenyl)methyl]-3-(1-butynyl)-3,5-dihydro- (9CI) (CA INDEX NAME)



RN 955789-44-5 CAPLUS
CN 4H-imidazo[4,5-d]pyridazin-4-one, 2-bromo-5-[(4-bromo-1-naphthalenyl)methyl]-3-(1-butynyl)-3,5-dihydro- (9CI) (CA INDEX NAME)



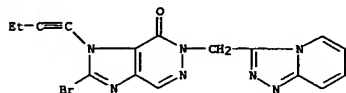
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<12/21/2005>

L4 ANSWER 3 OF 26 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

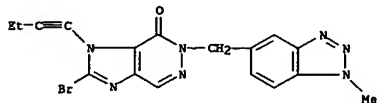
RN 855789-45-6 CAPLUS

CN 4H-Imidazo[4,5-d]pyridazin-4-one, 2-bromo-3-(1-butynyl)-3,5-dihydro-5-[(1,2,4-triazolo[4,3-a]pyridin-3-ylmethyl)- (9CI) (CA INDEX NAME)



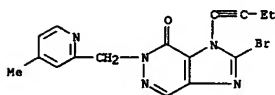
RN 855789-46-7 CAPLUS

CN 4H-Imidazo[4,5-d]pyridazin-4-one, 2-bromo-3-(1-butynyl)-3,5-dihydro-5-[(1-methyl-1H-benzotriazol-5-yl)methyl]- (9CI) (CA INDEX NAME)



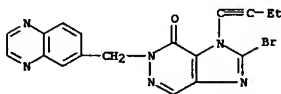
RN 855789-47-8 CAPLUS

CN 4H-Imidazo[4,5-d]pyridazin-4-one, 2-bromo-3-(1-butynyl)-3,5-dihydro-5-[(4-methyl-2-pyridinyl)methyl]- (9CI) (CA INDEX NAME)



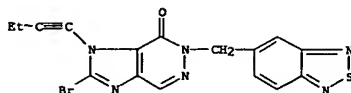
RN 855789-48-9 CAPLUS

CN 4H-Imidazo[4,5-d]pyridazin-4-one, 5-(2,1,3-benzothiadiazol-5-ylmethyl)-2-bromo-3-(1-butynyl)-3,5-dihydro- (9CI) (CA INDEX NAME)



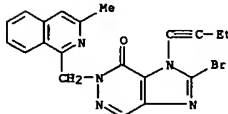
REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 3 OF 26 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



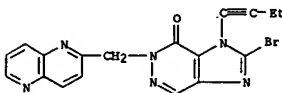
RN 855789-49-0 CAPLUS

CN 4H-Imidazo[4,5-d]pyridazin-4-one, 2-bromo-3-(1-butynyl)-3,5-dihydro-5-[(3-methyl-1-isoquinolinyl)methyl]- (9CI) (CA INDEX NAME)



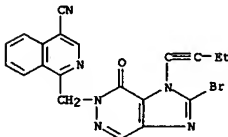
RN 855789-50-3 CAPLUS

CN 4H-Imidazo[4,5-d]pyridazin-4-one, 2-bromo-3-(1-butynyl)-3,5-dihydro-5-(1,5-naphthyridin-2-ylmethyl)- (9CI) (CA INDEX NAME)



RN 855789-51-4 CAPLUS

CN 4-Isoquinolinecarbonitrile, 1-[[2-bromo-3-(1-butynyl)-3,4-dihydro-4-oxo-5H-imidazo[4,5-d]pyridazin-5-yl)methyl]- (9CI) (CA INDEX NAME)



L4 ANSWER 4 OF 26 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2005:570533 CAPLUS

DOCUMENT NUMBER: 143:97364

TITLE: Bicyclic imidazole derivatives, the preparation thereof and their use as pharmaceutical compositions

INVENTOR(S): Himmelsbach, Frank; Langkopf, Elke; Eckhardt, Matthias; Haeuel, Norbert; Tadayyon, Mohammad; Thomas, Leo

PATENT ASSIGNEE(S): Boehringer Ingelheim International G.m.b.H., Germany

SOURCE: U.S. Pat. Appl., 17 pp.

DOCUMENT TYPE: CODEN: USXXCO

LANGUAGE: Patent

FAMILY ACC. NUM. COUNT: English

PATENT INFORMATION: 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2005143377	A1	20050630	US 2004-18894	20041221
DE 10360835	A1	20050721	DE 2003-10360835	20031223
WO 2005063750	A1	20050714	WO 2004-EP14399	20041217

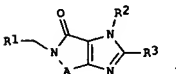
W: AB, AC, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GR, GU, HD, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPL. INFO.: DE 2003-10360835 A 20031223
US 2004-538684P P 20040123
DE 2004-102004046530A 20040924

OTHER SOURCE(S): MARPAT 143:97364

GI



AB The present invention relates to bicyclic imidazole compds. of general formula I wherein R1 to R3 and A are defined in claims (an example of a compound of the invention is 1-[(4-methyl-3-oxoquinazolin-2-yl)methyl]-3-methyl-7-(2-butyn-1-yl)-8-((R)-3-aminopiperidin-1-yl)xanthine), , the tautomers, the enantiomers, the stereoisomers, the mixts. thereof and the salts thereof, which have valuable pharmacol. properties, particularly an inhibiting effect on the activity of the enzyme dipeptidylpeptidase-IV (DPP-IV). In addition to the compds., pharmaceutical compns. containing I and a

process for preparing I are also claimed. A method of treating a disease chosen from type I and II diabetes mellitus, arthritis, obesity, allograft transplantation and calcitonin-induced osteoporosis using I is also claimed.

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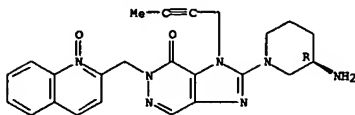
<12/21/2005>

L4 ANSWER 4 OF 26 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
 IT 856408-30-5P 856408-31-6P 856408-32-7P
 856408-33-8P 856408-34-9P 856408-35-0P
 856408-37-2P 856408-38-3P, 2-[(3R)-3-amino-1-piperidinyl]-3-(2-butyn-1-yl)-5-[(4-methyl-3-oxido-quinazolin-2-yl)methyl]-3,5-dihydroimidazo[4,5-d]pyridazin-4-one
 RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (candidate drug; preparation of bicyclic imidazole derivs. and their use

in pharmaceutical compns. for treating various diseases)

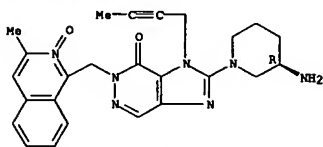
RN 856408-30-5 CAPLUS
 CN 4H-Imidazo[4,5-d]pyridazin-4-one, 2-[(3R)-3-amino-1-piperidinyl]-3-(2-butynyl)-3,5-dihydro-5-[(1-oxido-2-quinolinyl)methyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 856408-31-6 CAPLUS
 CN 4H-Imidazo[4,5-d]pyridazin-4-one, 2-[(3R)-3-amino-1-piperidinyl]-3-(2-butynyl)-3,5-dihydro-5-[(3-methyl-2-oxido-1-isoquinolinyl)methyl]- (9CI) (CA INDEX NAME)

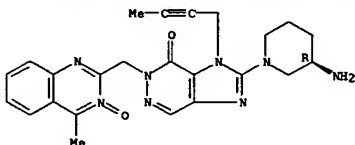
Absolute stereochemistry.



RN 856408-32-7 CAPLUS
 CN 4H-Imidazo[4,5-d]pyridazin-4-one, 2-[(3R)-3-amino-1-piperidinyl]-3-(2-butynyl)-3,5-dihydro-5-[(5-oxido-6-phenanthridinyl)methyl]- (9CI) (CA INDEX NAME)

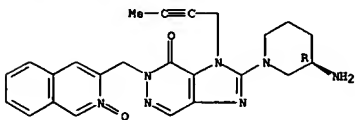
Absolute stereochemistry.

L4 ANSWER 4 OF 26 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

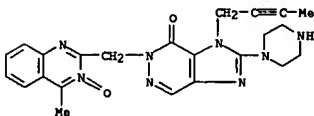


RN 856408-37-2 CAPLUS
 CN 4H-Imidazo[4,5-d]pyridazin-4-one, 2-[(3R)-3-amino-1-piperidinyl]-3-(2-butynyl)-3,5-dihydro-5-[(2-oxido-3-isoquinolinyl)methyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 856408-38-3 CAPLUS
 CN 4H-Imidazo[4,5-d]pyridazin-4-one, 3-(2-butynyl)-3,5-dihydro-5-[(4-methyl-3-oxido-2-quinazolinyl)methyl]-2-(1-piperazinyl)- (9CI) (CA INDEX NAME)



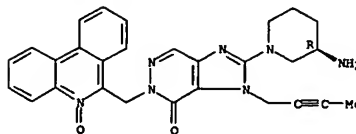
IT 856408-11-2P 856408-12-3P 856408-13-4P
 856408-14-5P 856408-15-6P 856408-16-7P
 856408-17-8P 856408-19-0P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (preparation of bicyclic imidazole derivs. and their use in pharmaceutical compns. for treating various diseases)

RN 856408-11-2 CAPLUS
 CN Carbanic acid, [(3R)-1-[1-(2-butynyl)-6,7-dihydro-6-[(1-oxido-2-quinolinyl)methyl]-7-oxo-1H-imidazo[4,5-d]pyridazin-2-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

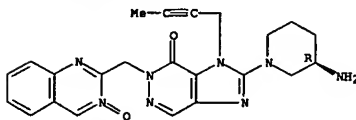
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L4 ANSWER 4 OF 26 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



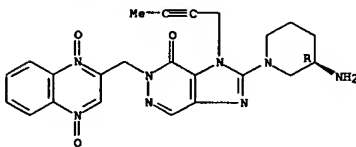
RN 856408-33-8 CAPLUS
 CN 4H-Imidazo[4,5-d]pyridazin-4-one, 2-[(3R)-3-amino-1-piperidinyl]-3-(2-butynyl)-3,5-dihydro-5-[(3-oxido-2-quinazolinyl)methyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 856408-34-9 CAPLUS
 CN 4H-Imidazo[4,5-d]pyridazin-4-one, 2-[(3R)-3-amino-1-piperidinyl]-3-(2-butynyl)-5-[(1,4-dioxido-2-quinazolinyl)methyl]-3,5-dihydro- (9CI) (CA INDEX NAME)

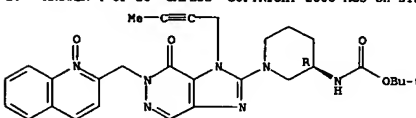
Absolute stereochemistry.



RN 856408-35-0 CAPLUS
 CN 4H-Imidazo[4,5-d]pyridazin-4-one, 2-[(3R)-3-amino-1-piperidinyl]-3-(2-butynyl)-3,5-dihydro-5-[(4-methyl-3-oxido-2-quinazolinyl)methyl]- (9CI) (CA INDEX NAME)

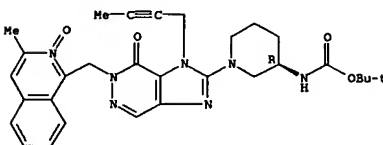
Absolute stereochemistry.

L4 ANSWER 4 OF 26 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



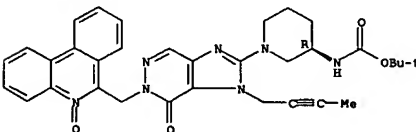
RN 856408-12-3 CAPLUS
 CN Carbanic acid, [(3R)-1-[1-(2-butynyl)-6,7-dihydro-6-[(3-methyl-2-oxido-1-isoquinolinyl)methyl]-7-oxo-1H-imidazo[4,5-d]pyridazin-2-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 856408-13-4 CAPLUS
 CN Carbanic acid, [(3R)-1-[1-(2-butynyl)-6,7-dihydro-6-[(5-oxido-6-phenanthridinyl)methyl]-7-oxo-1H-imidazo[4,5-d]pyridazin-2-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

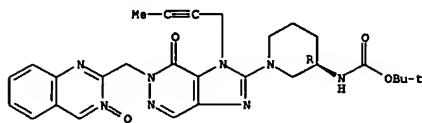


RN 856408-14-5 CAPLUS
 CN Carbanic acid, [(3R)-1-[1-(2-butynyl)-6,7-dihydro-6-[(3-oxido-2-quinazolinyl)methyl]-7-oxo-1H-imidazo[4,5-d]pyridazin-2-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Habte

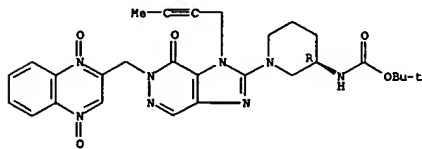
L4 ANSWER 4 OF 26 CAPLUS COPYRIGHT 2005 ACS ON STN (Continued)



RN 856408-15-6 CAPLUS

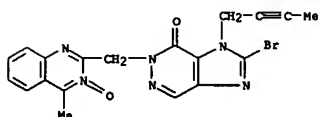
CN Carbanic acid, [(3R)-1-[1-(2-butynyl)-6-[(1,4-dioxido-2-quinazolinyl)methyl]-6,7-dihydro-7-oxo-1H-imidazo[4,5-d]pyridazin-2-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 856408-16-7 CAPLUS

CN 4H-imidazo[4,5-d]pyridazin-4-one, 2-bromo-3-(2-butynyl)-3,5-dihydro-5-[(4-methyl-3-oxido-2-quinazolinyl)methyl]- (9CI) (CA INDEX NAME)



RN 856408-17-8 CAPLUS

CN Carbanic acid, [(3R)-1-[1-(2-butynyl)-6,7-dihydro-6-[(4-methyl-3-oxido-2-quinazolinyl)methyl]-7-oxo-1H-imidazo[4,5-d]pyridazin-2-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

L4 ANSWER 5 OF 26 CAPLUS COPYRIGHT 2005 ACS ON STN

ACCESSION NUMBER: 2005:523288 CAPLUS

DOCUMENT NUMBER: 143:59991

TITLE:

Preparation of fused imidazole derivatives such as dihydroimidazopyridazine, dihydroimidazopyridine, hypoxanthine, and xanthine derivatives and preventives or therapeutic agents for multiple sclerosis

INVENTOR(S): Muramoto, Kenzo; Yasuda, Nobuyuki

PATENT ASSIGNEE(S): Eisai Co., Ltd., Japan

SOURCE: PCT Int. Appl., 139 pp.

DOCUMENT TYPE: Patent

LANGUAGES: Japanese

FAMILY ACC. NUM. COUNT: 1

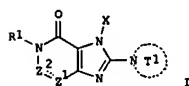
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005053695	A1	20050616	WO 2004-JP14857	20041007
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EG, ES, FI, GB, GD, GE, GH, GM, GR, HU, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			

PRIORITY APPL. INFO.:

OTHER SOURCE(S): MARPAT 143:59991

GI

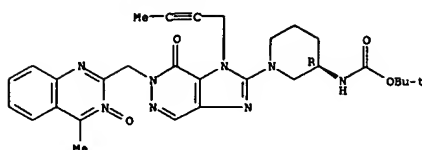


AB There are provided preventives or therapeutic agents for multiple sclerosis, characterized by containing compds. represented by the following general formula (I) [ring T1 = (un)substituted 4- to 12-membered mono- or bicyclic heterocyclyl containing 1 or 2 N atoms; X = each (un)substituted

C1-6 alkyl, C2-6 alkenyl, C2-6 alkynyl, C6-10 aryl, 5- to 10-membered heteroaryl, C6-10 aryl-C1-6 alkyl, or 5- to 10-membered heteroaryl-C1-6 alkyl; the solid line accompanied by a dotted line between Z2 and Z1 = a single or double bond; when the bond is a single bond, Z1 = NR2 and Z2 = CO; when the bond is a double line, Z1, Z2 = N or CR2; R1, R2 = -AO-A1-A2 (wherein AO = a single bond, (un)substituted C1-6 alkylene; A1 = a single bond, S, O, S(O), S(O)2, O2C, CO2, NRA, CONRA, NRACO, SO2NRA, or NRASO2; A2, RA = H, halo, cyano, each (un)substituted guanidino, C1-6 alkyl, C3-8 cycloalkyl, C3-8 cycloalkenyl, C2-6 alkenyl, C2-6 alkynyl, C6-10 aryl, 5- to 10-membered heteroaryl, 4- to 8-membered heterocyclyl, or 5- to 10-membered heteroaryl-C1-6 alkyl, etc.); when Z2 = CR2, R1 and R2

<12/21/2005>

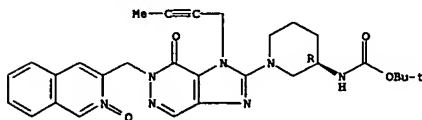
L4 ANSWER 4 OF 26 CAPLUS COPYRIGHT 2005 ACS ON STN (Continued)



RN 856408-19-0 CAPLUS

CN Carbanic acid, [(3R)-1-[1-(2-butynyl)-6,7-dihydro-6-[(2-oxido-3-isoquinolinyl)methyl]-7-oxo-1H-imidazo[4,5-d]pyridazin-2-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L4 ANSWER 5 OF 26 CAPLUS COPYRIGHT 2005 ACS ON STN (Continued)

together form a 5- to 7-membered ring], salts thereof, or hydrates of either. Thus, 7 mg 4-[7-(2-butynyl)-2-chloro-1-(2-cyanobenzyl)-6-oxo-6,7-dihydro-1H-purin-8-yl]piperazine-1-carboxylic acid tert-Bu ester was dissolved in 0.2 mL 1-methyl-2-pyrrolidone, treated with 8 mg 3-hydroxypyridine-2-carboxamide and 8 mg K2CO3, stirred at 100° for 2 h, treated with 1 N aq. HCl, and extd. with EtOAc. The EtOAc ext. was concd., dissolved in CF3CO2H, and concd. to give, after purifn. using reversed-phase HPLC, 3-[[7-(2-butynyl)-1-(2-cyanobenzyl)-6-oxo-8-(piperazin-1-yl)-6,7-dihydro-1H-purin-2-yl]oxyl]pyridine-2-carboxamide trifluoroacetate (II). II showed IC50 of 0.000890 μM against dipeptidyl peptidase IV (DPPIV). 7-(2-Butynyl)-1,3-dimethyl-8-(piperazin-1-yl)-3,7-(piperazin-1-yl)-3,7-dihydro-2,6-dione, 2-[[7-(2-butynyl)-1-methyl-6-oxo-8-(piperazin-1-yl)-6,7-dihydro-1H-purin-2-yl]oxyl]benzamide, and 2-(3-aminopiperidin-1-yl)-3-(2-butynyl)-5-methyl-3,5-dihydroimidazo[4,5-d]pyridazin-4-one trifluoroacetate inhibited the onset of allergic encephalomyelitis (EAE) in mice of human multiple sclerosis model.

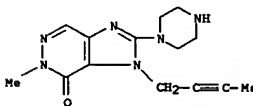
IT 635717-65-6P, 3-(2-Butynyl)-5-methyl-2-(piperazin-1-yl)-3,5-dihydroimidazo[4,5-d]pyridazin-4-one 635720-65-9P, 2-[[3-(2-Butynyl)-4-oxo-2-(piperazin-1-yl)-3,4-dihydroimidazo[4,5-d]pyridazin-5-yl]methyl]benzotriazole 854279-13-3P 854279-14-4P 854279-17-7P 854279-18-8P 854279-24-6P 854279-25-7P 854279-26-8P 854279-27-9P 854279-29-1P 854279-30-4P 854279-31-5P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of fused imidazole derivs. such as dihydroimidazopyridazine, dihydroimidazopyridine, and xanthine derivs. and preventives or therapeutic agents for multiple sclerosis)

RN 635717-65-6 CAPLUS

CN 4H-imidazo[4,5-d]pyridazin-4-one, 3-(2-butynyl)-3,5-dihydro-5-methyl-2-(1-piperazinyl)- (9CI) (CA INDEX NAME)

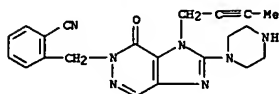


RN 635720-65-9 CAPLUS

CN Benzotriazole, 2-[[3-(2-butynyl)-3,4-dihydro-4-oxo-2-(1-piperazinyl)-5H-imidazo[4,5-d]pyridazin-5-yl]methyl]- (9CI) (CA INDEX NAME)

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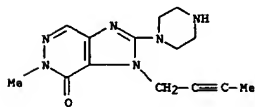
L4 ANSWER 5 OF 26 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



RN 854279-13-3 CAPLUS
CN 4H-imidazo[4,5-d]pyridazin-4-one, 3-(2-butynyl)-3,5-dihydro-5-methyl-2-(1-piperazinyl)-, trifluoroacetate (9CI) (CA INDEX NAME)

CM 1

CRN 635717-65-6
CMF C14 H18 N6 O



CM 2

CRN 76-05-1
CMF C2 H F3 O2

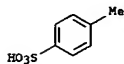


RN 854279-14-4 CAPLUS
CN 4H-imidazo[4,5-d]pyridazin-4-one, 3-(2-butynyl)-3,5-dihydro-5-[(phenylmethoxy)methyl]-2-(1-piperazinyl)-, trifluoroacetate (9CI) (CA INDEX NAME)

CM 1

CRN 635717-67-8
CMF C21 H24 N6 O2

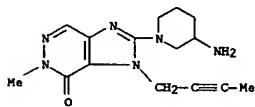
L4 ANSWER 5 OF 26 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



RN 854279-18-8 CAPLUS
CN 4H-imidazo[4,5-d]pyridazin-4-one, 2-(3-amino-1-piperidinyl)-3-(2-butynyl)-3,5-dihydro-5-methyl-, trifluoroacetate (9CI) (CA INDEX NAME)

CM 1

CRN 635717-75-8
CMF C15 H20 N6 O



CM 2

CRN 76-05-1
CMF C2 H F3 O2

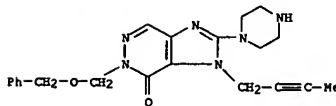


RN 854279-24-6 CAPLUS
CN 4H-imidazo[4,5-d]pyridazin-4-one, 3-(2-butynyl)-3,5-dihydro-2-(1-piperazinyl)-5-(2-propynyl)-, trifluoroacetate (9CI) (CA INDEX NAME)

CM 1

CRN 635720-47-7
CMF C16 H18 N6 O

L4 ANSWER 5 OF 26 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



CM 2

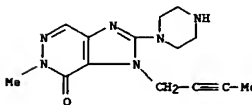
CRN 76-05-1
CMF C2 H F3 O2



RN 854279-17-7 CAPLUS
CN 4H-imidazo[4,5-d]pyridazin-4-one, 3-(2-butynyl)-3,5-dihydro-5-methyl-2-(1-piperazinyl)-, 4-methylbenzenesulfonate (9CI) (CA INDEX NAME)

CM 1

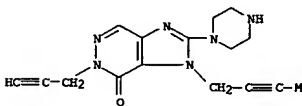
CRN 635717-65-6
CMF C14 H18 N6 O



CM 2

CRN 104-15-4
CMF C7 H8 O3 S

L4 ANSWER 5 OF 26 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



CM 2

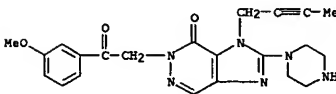
CRN 76-05-1
CMF C2 H F3 O2



RN 854279-25-7 CAPLUS
CN 4H-imidazo[4,5-d]pyridazin-4-one, 3-(2-butynyl)-3,5-dihydro-5-[(3-methoxyphenyl)-2-oxoethyl]-2-(1-piperazinyl)-, trifluoroacetate (9CI) (CA INDEX NAME)

CM 1

CRN 635720-63-7
CMF C22 H24 N6 O3



CM 2

CRN 76-05-1
CMF C2 H F3 O2



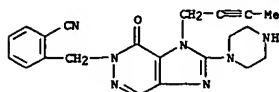
<12/21/2005>

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L4 ANSWER 5 OF 26 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
 RN 854279-26-8 CAPLUS
 CN Benzonitrile, 2-[[3-(2-butynyl)-3,4-dihydro-4-oxo-2-(1-piperazinyl)-5H-imidazo[4,5-d]pyridazin-5-yl]methyl]-, trifluoroacetate (9CI) (CA INDEX NAME)

CM 1

CRN 635720-65-9
 CMF C21 H21 N7 O



CM 2

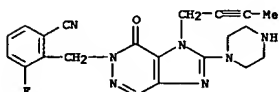
CRN 76-05-1
 CMF C2 H F3 O2



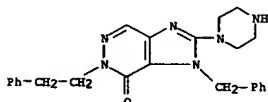
RN 854279-27-9 CAPLUS
 CN Benzonitrile, 2-[[3-(2-butynyl)-3,4-dihydro-4-oxo-2-(1-piperazinyl)-5H-imidazo[4,5-d]pyridazin-5-yl]methyl]-3-fluoro-, trifluoroacetate (9CI) (CA INDEX NAME)

CM 1

CRN 635721-29-8
 CMF C21 H20 F N7 O



L4 ANSWER 5 OF 26 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



CM 2

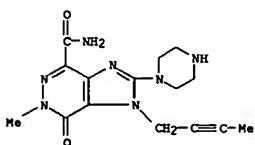
CRN 76-05-1
 CMF C2 H F3 O2



RN 854279-31-5 CAPLUS
 CN 1H-imidazo[4,5-d]pyridazine-4-carboxamide, 1-(2-butynyl)-6,7-dihydro-6-methyl-7-oxo-2-(1-piperazinyl)-, trifluoroacetate (9CI) (CA INDEX NAME)

CM 1

CRN 635722-01-9
 CMF C15 H19 N7 O2



CM 2

CRN 76-05-1
 CMF C2 H F3 O2

<12/21/2005>

L4 ANSWER 5 OF 26 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
 CM 2

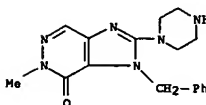
CRN 76-05-1
 CMF C2 H F3 O2



RN 854279-29-1 CAPLUS
 CN 4H-imidazo[4,5-d]pyridazin-4-one, 3,5-dihydro-5-methyl-3-(phenylmethyl)-2-(1-piperazinyl)-, trifluoroacetate (9CI) (CA INDEX NAME)

CM 1

CRN 635721-55-0
 CMF C17 H20 N6 O



CM 2

CRN 76-05-1
 CMF C2 H F3 O2



RN 854279-30-4 CAPLUS
 CN 4H-imidazo[4,5-d]pyridazin-4-one, 3,5-dihydro-5-(2-phenylethyl)-3-(phenylmethyl)-2-(1-piperazinyl)-, trifluoroacetate (9CI) (CA INDEX NAME)

CM 1

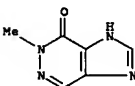
CRN 635721-59-4
 CMF C24 H26 N6 O

L4 ANSWER 5 OF 26 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

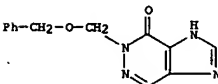


IT 76756-58-6, 5-Methyl-3,5-dihydroimidazo[4,5-d]pyridazin-4-one
 82137-50-6, 5-(Benzyloxymethyl)imidazo[4,5-d]pyridazin-4-one
 RI: RCT (Reactant); RACT (Reactant or reagent)
 (reparation of fused imidazole derivs. such as dihydroimidazopyridazine, dihydroimidzolpyridine, hypoxanthine, and xanthine derivs. and preventives or therapeutic agents for multiple sclerosis)

RN 76756-58-6 CAPLUS
 CN 4H-imidazo[4,5-d]pyridazin-4-one, 1,5-dihydro-5-methyl- (9CI) (CA INDEX NAME)



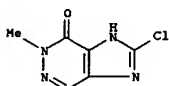
RN 82137-50-6 CAPLUS
 CN 4H-imidazo[4,5-d]pyridazin-4-one, 1,5-dihydro-5-[(phenylmethoxy)methyl]- (9CI) (CA INDEX NAME)



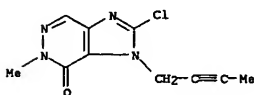
IT 635722-45-1P, 2-Chloro-5-methyl-1,5-dihydroimidazo[4,5-d]pyridazin-4-one 635722-46-2P, 3-(2-Butynyl)-2-chloro-5-methyl-3,5-dihydroimidazo[4,5-d]pyridazin-4-one 635722-47-3P, 4-(1-(2-Butynyl)-6-methyl-7-oxo-6,7-dihydro-1H-imidazo[4,5-d]pyridazin-2-yl)piperazine-1-carboxylic acid tert-butyl ester 635722-77-9P, 4-(6-Benzyloxymethyl-7-oxo-6,7-dihydro-1H-imidazo[4,5-d]pyridazin-2-yl)piperazine-1-carboxylic acid tert-butyl ester 635722-78-0P, 4-(6-Benzyloxymethyl-1-(2-butynyl)-7-oxo-6,7-dihydro-1H-imidazo[4,5-d]pyridazin-2-yl)piperazine-1-carboxylic acid tert-butyl ester 635722-82-6P, 4-(6-Methyl-7-oxo-6,7-dihydro-1H-imidazo[4,5-d]pyridazin-2-yl)piperazine-1-carboxylic acid tert-butyl ester 635723-02-3P, 4-(1-Benzyl-6-benzyloxymethyl-7-oxo-6,7-dihydro-1H-imidazo[4,5-d]pyridazin-2-yl)piperazine-1-carboxylic acid tert-butyl ester 635723-14-7P, 4-(1-(2-Butynyl)-4-carbamoyl-6-methyl-7-oxo-6,7-dihydro-1H-imidazo[4,5-d]pyridazin-2-yl)piperazine-1-carboxylic acid tert-butyl ester 635723-79-4P, [1-(6-Methyl-7-oxo-6,7-dihydro-1H-imidazo[4,5-d]pyridazin-2-yl)piperidin-3-yl]carbamic acid tert-butyl ester
 RI: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT

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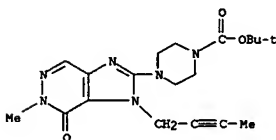
L4 ANSWER 5 OF 26 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
 (Reactant or reagent)
 (preparation of fused imidazole derivs. such as dihydroimidazopyridazine, dihydroimidzolpyridine, hypoxanthine, and xanthine derivs. and preventives or therapeutic agents for multiple sclerosis)
 RN 635722-45-1 CAPLUS
 CN 4H-imidazo[4,5-d]pyridazin-4-one, 2-chloro-1,5-dihydro-5-methyl- (9CI) (CA INDEX NAME)



RN 635722-46-2 CAPLUS
 CN 4H-imidazo[4,5-d]pyridazin-4-one, 3-(2-butynyl)-2-chloro-3,5-dihydro-5-methyl- (9CI) (CA INDEX NAME)

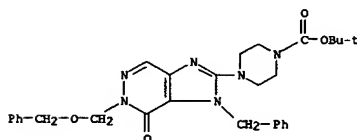


RN 635722-47-3 CAPLUS
 CN 1-Piperazinecarboxylic acid, 4-[1-(2-butynyl)-6,7-dihydro-6-methyl-7-oxo-1H-imidazo[4,5-d]pyridazin-2-yl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

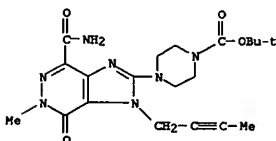


RN 635722-77-9 CAPLUS
 CN 1-Piperazinecarboxylic acid, 4-[4,5-dihydro-4-oxo-5-[(phenylmethoxy)methyl]-1H-imidazo[4,5-d]pyridazin-2-yl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

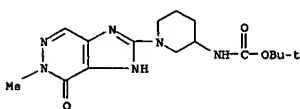
L4 ANSWER 5 OF 26 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



RN 635723-14-7 CAPLUS
 CN 1-Piperazinecarboxylic acid, 4-[4-(aminocarbonyl)-1-(2-butynyl)-6,7-dihydro-6-methyl-7-oxo-1H-imidazo[4,5-d]pyridazin-2-yl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

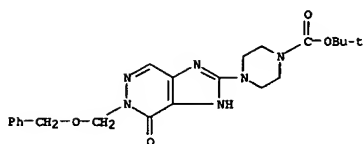


RN 635723-79-4 CAPLUS
 CN Carbamic acid, [1-(4,5-dihydro-5-methyl-4-oxo-1H-imidazo[4,5-d]pyridazin-2-yl)-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

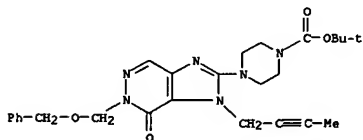


REFERENCE COUNT: 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

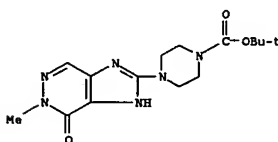
L4 ANSWER 5 OF 26 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



RN 635722-78-0 CAPLUS
 CN 1-Piperazinecarboxylic acid, 4-[1-(2-butynyl)-6,7-dihydro-7-oxo-6-[(phenylmethoxy)methyl]-1H-imidazo[4,5-d]pyridazin-2-yl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



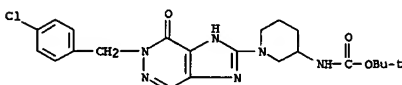
RN 635722-82-6 CAPLUS
 CN 1-Piperazinecarboxylic acid, 4-(4,5-dihydro-5-methyl-4-oxo-1H-imidazo[4,5-d]pyridazin-2-yl)-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



RN 635723-02-3 CAPLUS
 CN 1-Piperazinecarboxylic acid, 4-[6,7-dihydro-7-oxo-6-[(phenylmethoxy)methyl]-1H-imidazo[4,5-d]pyridazin-2-yl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

L4 ANSWER 6 OF 26 CAPLUS COPYRIGHT 2005 ACS on STN

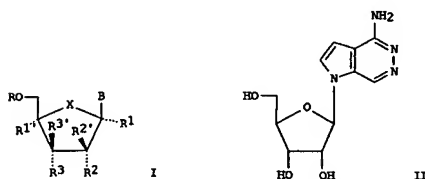
ACCESSION NUMBER: 2005:245650 CAPLUS
 DOCUMENT NUMBER: 142:463689
 TITLE: Synthesis of Purines and Other Fused Imidazoles from Acyclic Amidines and Guanidines
 AUTHOR(S): Szczepankiewicz, Bruce G.; Rohde, Jeffrey J.; Kurukulasuriya, Ravi
 CORPORATE SOURCE: Metabolic Disease Research, Global Pharmaceutical Research and Development Organization, Abbott Laboratories, Abbott Park, IL, 60064-6098, USA
 SOURCE: Organic Letters (2005), 7(9), 1833-1835
 CODEN: ORLEF7; ISSN: 1523-7060
 PUBLISHER: American Chemical Society
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 OTHER SOURCE(S): CASREACT 142:463689
 AB Purines, xanthenes, and other fused imidazoles can be prepared from amidines or guanidines, with retrosynthetic disconnection at the ring fusion. Ring closure proceeds using Cu(I), with no special ligands required. The method allows for easy modification of the heterocyclic nucleus and is tolerant of functionality pendant to the ring system.
 IT 851608-63-4P
 RI: SPN (Synthetic preparation); PREP (Preparation)
 (preparation of purines and other fused imidazoles from acyclic amidines and guanidines)
 RN 851608-63-4 CAPLUS
 CN Carbamic acid, [1-[5-[(4-chlorophenyl)methyl]-4,5-dihydro-4-oxo-1H-imidazo[4,5-d]pyridazin-2-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



REFERENCE COUNT: 15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 7 OF 26 CAPLUS COPYRIGHT 2005 ACS ON STN
 ACCESSION NUMBER: 2005:99345 CAPLUS
 DOCUMENT NUMBER: 142:177053
 TITLE: Preparation of purine nucleoside analogs for treating
 flaviviridae including hepatitis C
 INVENTOR(S): Storer, Richard; Gosselin, Gilles; Dukhan, David;
 Leroy, Frederic
 PATENT ASSIGNER(S): Idenix Cayman Limited, Cayman I.; Centre National De
 La Recherche Scientifique, L'universite Montpellier II
 SOURCE: PCT Int. Appl., 139 pp.
 CODEN: PIXX02
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

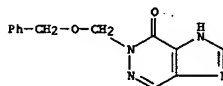
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005009418	A2	20050203	WO 2004-192703	20040726
WO 2005009418	A3	20050407		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
US 2005075309	A1	20050407	US 2004-900008	20040726
PRIORITY APPLN. INFO:			US 2003-490216P	P 20030725
OTHER SOURCE(S):		MARPAT 142:177053		
GI				



AB Title nucleosides I, wherein B is nucleobase; R is H, mono-, di-, or

L4 ANSWER 7 OF 26 CAPLUS COPYRIGHT 2005 ACS ON STN (Continued)

L4 ANSWER 7 OF 26 CAPLUS COPYRIGHT 2005 ACS ON STN (Continued)
 tri-phosphate, a stabilized phosphate, or phosphonate; X is O, S(O)n, CH,
 CH2, substituted CH, NH, N-alkyl, N-alkenyl, N-alkynyl, S(O)N-alkyl,
 S(O)N-alkenyl, S(O)N-alkynyl, SCH-halogen; n is 0-2; R1 and R1' are
 independently H, OH, alkyl, azido, cyano, alkenyl, alkynyl, C(O)O-(alkyl),
 C(O)O-(alkenyl), C(O)O-(alkynyl), O(alkyl), O(alkenyl),
 O(alkynyl), halogen, NO2, NH2, NH-alkyl, NH(alkyl), amide, S(O)N-alkyl,
 S(O)N-alkenyl, S(O)N-alkynyl, SCH-halogen; X is O, S(O)n, NH, N-alkyl,
 N-alkenyl, N-alkynyl, S(O)N-alkyl, S(O)N-alkenyl, S(O)N-alkynyl, or
 SCH-halogen; R2 and R3 are independently OH, NH2, SH, halogen, CN, NO2,
 amide, N3, alkyl, alkenyl, alkynyl, C(O)O-(alkyl), C(O)O-(alkenyl),
 C(O)O-(alkynyl), O(alkyl), O(alkenyl), O(alkynyl), OC(O)NH, NC,
 C(O)OH, SCN, CCM, S(alkyl), S(alkenyl), S(alkynyl), NH(alkyl),
 NH(alkenyl), NH(alkynyl), an amino acid residue, a prodrug or leaving
 group that provides OH in vivo, or an 3-7 membered heterocyclic ring
 having O, S and/or N independently as a heteroatom taken alone or in
 combination; R2' and R3' are independently H, alkyl, alkenyl, or alkynyl;
 C(O)O(alkyl), C(O)O(alkenyl), C(O)O(alkynyl), amide, O(alkyl), O(alkenyl),
 O(alkynyl), halogen, halogenated alkyl and particularly CF3, azido, cyano,
 NO2, S(alkyl), S(alkenyl), S(alkynyl), NH2, NH(alkyl), NH(alkenyl),
 NH(alkynyl), NH(alkyl) were prepd. as antiviral agents. This invention is
 directed to a method for treating a host, esp. a human, infected with
 hepatitis C, flavivirus and/or pestivirus, comprising administering to
 that host an effective amt. of an anti-HCV biol. active
 pentofuranonucleoside where the pentofuranonucleoside base is an
 optionally substituted 2-azapurine. The optionally substituted
 pentofuranonucleoside, or a salt or prodrug thereof, may be administered
 alone or in combination with one or more optionally substituted
 pentofuranonucleosides or other antiviral agents. Thus, purine
 nucleoside II, 2HCl was prepd. and tested in vitro as antiviral agent. The
 antiviral agent is selected from the group consisting of an interferon,
 ribavirin, an interleukin, an NS3 protease inhibitor, a cysteine protease
 inhibitor, phenanthrenequinone, a thiazolidine deriv., a thiazolidine and
 a benzamide, a helicase inhibitor, a polymerase inhibitor, a nucleotide
 analog, gliotoxin, cerulenin, an antisense phosphorothioate
 oligodeoxyribonucleotide, an inhibitor of IRES-dependent translation, and
 a ribozyme.
 IT 82137-30-6P
 RI: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
 (Reactant or reagent)
 (preparation of purine nucleoside analogs for treating flaviviridae
 including hepatitis C)
 RN 82137-50-6 CAPLUS
 CN 4H-Imidazo[4,5-d]pyridazin-4-one, 1,5-dihydro-5-[(phenylmethoxy)methyl]-
 (5CI) (CA INDEX NAME)

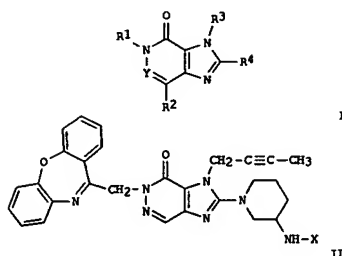


L4 ANSWER 8 OF 26 CAPLUS COPYRIGHT 2005 ACS ON STN

ACCESSION NUMBER: 2004:1127381 CAPLUS
 DOCUMENT NUMBER: 142:74585
 TITLE: Preparation of imidazopyridazinones and related
 compounds as dipeptidyl peptidase IV (DPP-IV)
 inhibitors for the treatment of diabetes
 INVENTOR(S): Eckhardt, Matthias; Hauele, Norbert; Langkopf, Elke;
 Himmelshach, Frank; Kauffmann-Hefner, Iris; Tadayyon,
 Mohammad; Mark, Michael
 PATENT ASSIGNER(S): Boehringer Ingelheim International GmbH, Germany;
 Boehringer Ingelheim Pharma GmbH & Co. KG
 SOURCE: PCT Int. Appl., 106 pp.
 CODEN: PIXX02
 DOCUMENT TYPE: Patent
 LANGUAGE: German
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004111051	A1	20041223	WO 2004-EP6303	20040611
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
DE 10327439	A1	20050105	DE 2003-10327439	20030618
US 2005026921	A1	20050203	US 2004-065719	20040610
PRIORITY APPLN. INFO:			DE 2003-10327439	A 20030618
			US 2003-487309P	P 20030715
OTHER SOURCE(S):		MARPAT 142:74585		
GI				

L4 ANSWER 8 OF 26 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



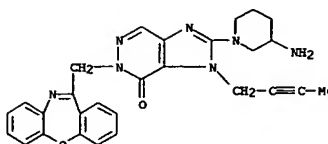
AB Title compds. I (R¹ = alkyl substituted 3,4-dihydroquinolinyl, 3,4-dihydroisoquinolinyl, 1,4-dihydroquinazolinyl, etc.; R² = H, F, Cl, etc.; R³ = (un)substituted alkyl, e.g., cycloalkyl, cycloalkenyl, aryl, etc.; R⁴ = (un)substituted azetidin-1-yl, pyrrolidin-1-yl, Y = N, C-R⁵; R⁵ = H, alkyl] and their pharmaceutically acceptable salts and formulations were prepared. For example, TFA mediated deprotection of Boc-amine II (X = Boc) afforded claimed imidazopyridazinone II (X = H) in 63% yield. In dipeptidyl peptidase IV (DPP-IV) inhibition assays, 8-examples of compds. I exhibited IC₅₀ values ranging from 3-58 nM, e.g., the IC₅₀ value of imidazopyridazinone II (X = H) was 14 nM. Compds. I are claimed to be useful for the treatment of type I and type II diabetes mellitus.

IT 813462-54-3P 813462-55-4P 813462-56-5P
813462-57-6P 813462-58-7P 813462-59-8P
813462-60-1P 813462-61-2P 813462-62-3P
813462-63-4P 813462-64-5P

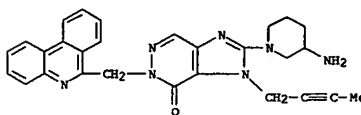
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of imidazopyridazinones and related compds. as dipeptidyl peptidase IV (DPP-IV) inhibitors for the treatment of diabetes)

RN 813462-54-3 CAPLUS
CN 4H-Imidazo[4,5-d]pyridazin-4-one, 2-[(3R)-3-amino-1-piperidinyl]-3-(2-butynyl)-5-(dibenz[b,f][1,4]oxazepin-11-ylmethyl)-3,5-dihydro- (9CI) (CA INDEX NAME)

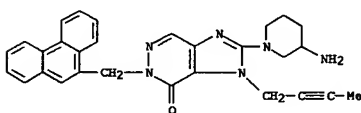
L4 ANSWER 8 OF 26 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



RN 813462-55-4 CAPLUS
CN 4H-Imidazo[4,5-d]pyridazin-4-one, 2-(3-amino-1-piperidinyl)-3-(2-butynyl)-3,5-dihydro-5-(6-phenanthridinylmethyl)- (9CI) (CA INDEX NAME)



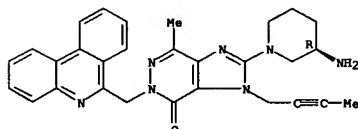
RN 813462-56-5 CAPLUS
CN 4H-Imidazo[4,5-d]pyridazin-4-one, 2-(3-amino-1-piperidinyl)-3-(2-butynyl)-3,5-dihydro-5-(9-phenanthrenylmethyl)- (9CI) (CA INDEX NAME)



RN 813462-57-6 CAPLUS
CN 4H-Imidazo[4,5-d]pyridazin-4-one, 2-[(3R)-3-amino-1-piperidinyl]-3-(2-butynyl)-3,5-dihydro-7-methyl-5-(6-phenanthridinylmethyl)- (9CI) (CA INDEX NAME)

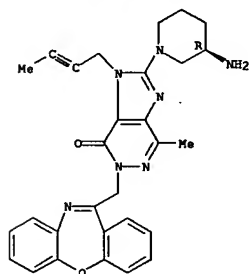
Absolute stereochemistry.

L4 ANSWER 8 OF 26 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



RN 813462-58-7 CAPLUS
CN 4H-Imidazo[4,5-d]pyridazin-4-one, 2-[(3R)-3-amino-1-piperidinyl]-3-(2-butynyl)-5-(dibenz[b,f][1,4]oxazepin-11-ylmethyl)-3,5-dihydro-7-methyl- (9CI) (CA INDEX NAME)

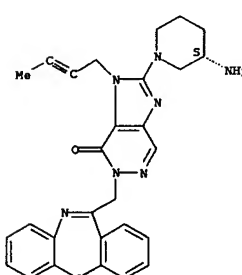
Absolute stereochemistry.



RN 813462-59-8 CAPLUS
CN 4H-Imidazo[4,5-d]pyridazin-4-one, 2-[(3S)-3-amino-1-piperidinyl]-3-(2-butynyl)-5-(dibenz[b,f][1,4]oxazepin-11-ylmethyl)-3,5-dihydro- (9CI) (CA INDEX NAME)

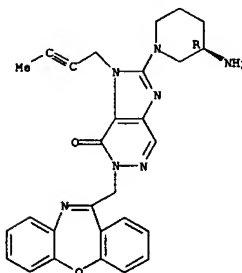
Absolute stereochemistry.

L4 ANSWER 8 OF 26 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



RN 813462-60-1 CAPLUS
CN 4H-Imidazo[4,5-d]pyridazin-4-one, 2-[(3R)-3-amino-1-piperidinyl]-3-(2-butynyl)-5-(dibenz[b,f][1,4]oxazepin-11-ylmethyl)-3,5-dihydro- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



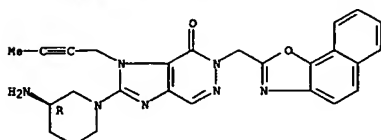
RN 813462-61-2 CAPLUS
CN 4H-Imidazo[4,5-d]pyridazin-4-one, 2-[(3R)-3-amino-1-piperidinyl]-3-(2-butynyl)-5-(dibenz[b,f][1,4]oxazepin-11-ylmethyl)-3,5-dihydro- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

<12/21/2005>

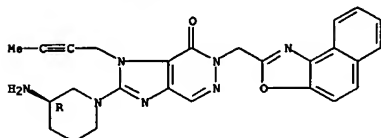
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L4 ANSWER 8 OF 26 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



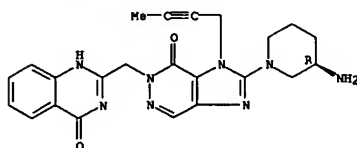
RN 813462-62-3 CAPLUS
 CN 4H-imidazo[4,5-d]pyridazin-4-one, 2-[(3R)-3-amino-1-piperidinyl]-3-(2-butynyl)-3,5-dihydro-5-(naphth[1,2-d]oxazol-2-ylmethyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



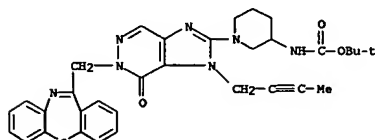
RN 813462-63-4 CAPLUS
 CN 4(1H)-Quinazolinone, 2-[[2-[(3R)-3-amino-1-piperidinyl]-3-(2-butynyl)-3,4-dihydro-4-oxo-5H-imidazo[4,5-d]pyridazin-5-yl]methyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



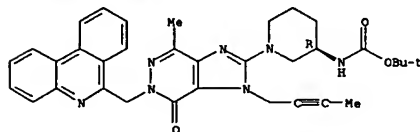
RN 813462-64-5 CAPLUS
 CN 4H-imidazo[4,5-d]pyridazin-4-one, 2-[(3R)-3-amino-1-piperidinyl]-3-(2-butynyl)-3,5-dihydro-7-methyl-5-(6-phenanthridinylmethyl)-, trifluoroacetate (9CI) (CA INDEX NAME)

L4 ANSWER 8 OF 26 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



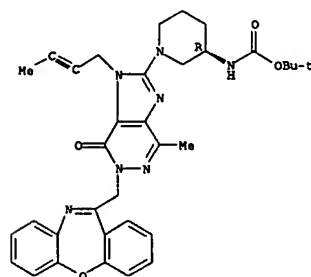
RN 813462-66-7 CAPLUS
 CN Carbanic acid, [(3R)-1-[1-(2-butynyl)-6,7-dihydro-4-methyl-7-oxo-6-(6-phenanthridinylmethyl)-1H-imidazo[4,5-d]pyridazin-2-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 813462-67-8 CAPLUS
 CN Carbanic acid, [(3R)-1-[1-(2-butynyl)-6-(dibenz[b,f][1,4]oxazepin-11-ylmethyl)-6,7-dihydro-4-methyl-7-oxo-1H-imidazo[4,5-d]pyridazin-2-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

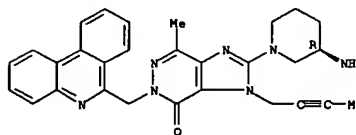


<12/21/2005>

L4 ANSWER 8 OF 26 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

CM 1
 CRN 813462-57-6
 CMF C29 H29 N7 O

Absolute stereochemistry.



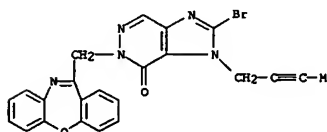
CM 2
 CRN 76-05-1
 CMF C2 H F3 O2



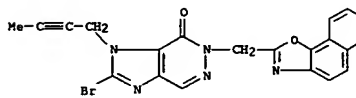
IT 813462-65-6P 813462-66-7P 813462-67-8P
 813462-68-9P 813462-69-0P, 2-Bromo-3-(2-butynyl)-5-[(naphtho[2,1-d]oxazol-2-yl)methyl]-3,5-dihydroimidazo[4,5-d]pyridazin-4-one 813462-70-3P, 2-Bromo-3-(2-butynyl)-5-[(naphtho[1,2-d]oxazol-2-yl)methyl]-3,5-dihydroimidazo[4,5-d]pyridazin-4-one 813462-71-4P 813462-74-7P 813462-75-8P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (preparation of imidazopyridazinones and related compds. as dipeptidyl peptidase IV (DPP-IV) inhibitors for the treatment of diabetes)
 RN 813462-65-6 CAPLUS
 CN Carbanic acid, [(3R)-1-(2-butynyl)-6-(dibenz[b,f][1,4]oxazepin-11-ylmethyl)-6,7-dihydro-7-oxo-1H-imidazo[4,5-d]pyridazin-2-yl]-3-piperidinyl-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

L4 ANSWER 8 OF 26 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

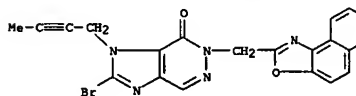
RN 813462-68-9 CAPLUS
 CN 4H-imidazo[4,5-d]pyridazin-4-one, 2-bromo-3-(2-butynyl)-5-(dibenz[b,f][1,4]oxazepin-11-ylmethyl)-3,5-dihydro- (9CI) (CA INDEX NAME)



RN 813462-69-0 CAPLUS
 CN 4H-imidazo[4,5-d]pyridazin-4-one, 2-bromo-3-(2-butynyl)-3,5-dihydro-5-(naphth[2,1-d]oxazol-2-ylmethyl)- (9CI) (CA INDEX NAME)



RN 813462-70-3 CAPLUS
 CN 4H-imidazo[4,5-d]pyridazin-4-one, 2-bromo-3-(2-butynyl)-3,5-dihydro-5-(naphth[1,2-d]oxazol-2-ylmethyl)- (9CI) (CA INDEX NAME)

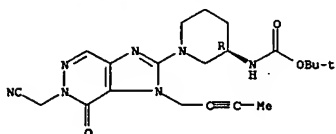


RN 813462-71-4 CAPLUS
 CN Carbanic acid, [(3R)-1-[1-(2-butynyl)-6-(cyanomethyl)-6,7-dihydro-7-oxo-1H-imidazo[4,5-d]pyridazin-2-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

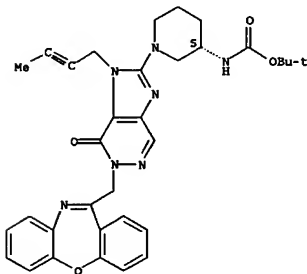
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L4 ANSWER 8 OF 26 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



RN 813462-74-7 CAPLUS
 CN Carbanic acid, [(3S)-1-[1-(2-butynyl)-6-(dibenz[b,f][1,4]oxazepin-11-ylmethyl)-6,7-dihydro-7-oxo-1H-imidazo[4,5-d]pyridazin-2-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

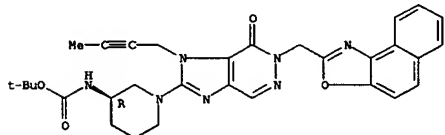
Absolute stereochemistry.



RN 813462-75-8 CAPLUS
 CN Carbanic acid, [(3R)-1-[1-(2-butynyl)-6-(dibenz[b,f][1,4]oxazepin-11-ylmethyl)-6,7-dihydro-7-oxo-1H-imidazo[4,5-d]pyridazin-2-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

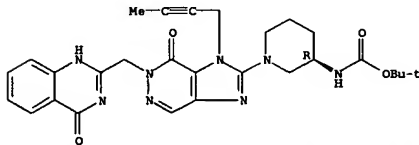
Absolute stereochemistry.

L4 ANSWER 8 OF 26 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



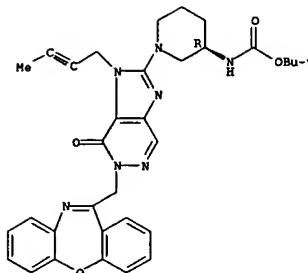
RN 813462-87-2 CAPLUS
 CN Carbanic acid, [(3R)-1-[1-(2-butynyl)-6-[(1,4-dihydro-4-oxo-2-quinazolinyl)methyl]-6,7-dihydro-7-oxo-1H-imidazo[4,5-d]pyridazin-2-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



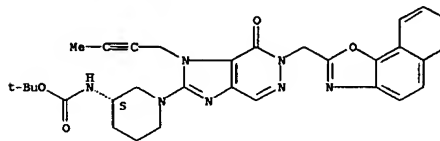
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L4 ANSWER 8 OF 26 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



RN 813462-76-9 CAPLUS
 CN Carbanic acid, [(3S)-1-[1-(2-butynyl)-6,7-dihydro-6-(naphth[2,1-d]oxazol-2-ylmethyl)-7-oxo-1H-imidazo[4,5-d]pyridazin-2-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 813462-77-0 CAPLUS
 CN Carbanic acid, [(3R)-1-[1-(2-butynyl)-6,7-dihydro-6-(naphth[1,2-d]oxazol-2-ylmethyl)-7-oxo-1H-imidazo[4,5-d]pyridazin-2-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

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work

L4 ANSWER 9 OF 26 CAPLUS COPYRIGHT 2005 ACS on STN

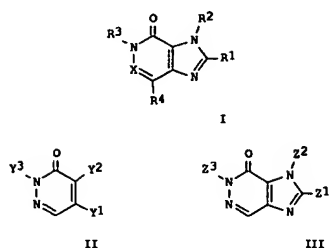
ACCESSION NUMBER: 2004:493705 CAPLUS
 DOCUMENT NUMBER: 141:54352
 TITLE: Production and use of novel substituted imidazopyridinones and imidazopyridazones as medicaments
 INVENTOR(S): Haeucl, Norbert; Himmelsbach, Frank; Langkopf, Elke; Eckhardt, Matthias; Maier, Roland; Mark, Michael; Tadayyon, Mohammad; Kauffmann-Hefner, Itis
 PATENT ASSIGNEE(S): Boehringer Ingelheim Pharma G.m.b.H. & Co. K.-G., Germany
 SOURCE: PCT Int. Appl., 123 pp.
 DOCUMENT TYPE: CODEN: PINKD2
 LANGUAGE: Patent
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004050658	A1	20040617	WO 2003-EP13648	20031203
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GR, GU, HK, HU, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MY, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
DE 10256264	A1	20040624	DE 2002-10256264	20021203
DE 10309927	A1	20040916	DE 2003-10309927	20030307
US 2005020574	A1	20050127	US 2003-726214	20031202
CA 2508233	AA	20040617	CA 2003-2508233	20031203
EP 1569936	A1	20050907	EP 2003-789123	20031203
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK			
PRIORITY APPLN. INFO.:				
			DE 2002-10256264	A 20021203
			DE 2003-10309927	A 20030307
			US 2002-437438P	P 20021230
			US 2003-456598P	P 20030321
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OTHER SOURCE(S):				
GI			MARPAT 141:54352	

<12/21/2005>

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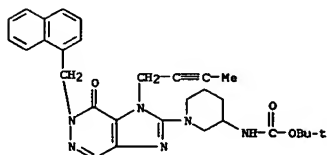
L4 ANSWER 9 OF 26 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



AB The invention relates to substituted imidazo-pyridinones and imidazo-pyridazinones I (R1 = 5- to 7-membered cycloalkylenimino (optionally substituted with C1-3-alkyl), 6- to 7-membered cycloalkylenimino (4-methylene substituted, to 7-membered cycloalkylamino, etc.; R2 = CH2Ph (F-, Cl-, Br-, CN-substituted Ph), (un)branched C3-8-alkenyl, C3-5-alkynyl, C3-7-cycloalkylmethyl, C5-7-cycloalkylmethyl, urylmethyl, thienylmethyl, pyrrolylmethyl, thiazolylmethyl, R3 = (un)branched C1-6-alkyl, C1-6-haloalkyl, C1-6-cyanoalkyl, CMePh, CH2CH(OH)Ph, CH2COPh (optionally substituted Ph), 3-methyl-2-oxo-2,3-dihydrobenzoxazolyl)carbonylmethyl, thienylcarbonylmethyl, mono- or bicyclic heteroaryl (C1-6-alkyl), R4 = H, C1-3-alkyl, X = N, CR5; R5 = H, Me; etc.), the tautomers thereof, the stereoisomers thereof, the mixts. thereof and the salts thereof, which have valuable pharmacol. properties, especially an inhibitory effect on the activity of the enzyme dipeptidylpeptidase-IV (DPP-IV). Thus, I=HCl [R1 = 3-aminopiperidino, R2 = 2-butenyl, R3 = (1-naphthyl)methyl, R4 = H, X = N] was prepared from 4,5-dichloro-3-hydroxy-2H-pyridazine (II; Y1 = Y2 = Cl, Y3 = H) via N-alkylation with 1-(chloromethyl)naphthalene to give II [Y1 = Y2 = Cl, Y3 = (1-naphthyl)methyl], hydrolysis-nitration to II [Y1 = OH, Y2 = NO2, Y3 = (1-naphthyl)methyl], amination to give II [Y1 = NH2, Y2 = NO2, Y3 = (1-naphthyl)methyl], reduction to the 4,5-diamino derivative, cyclocondensation with thio-carbonylimidazole to give imidazopyridazine III [Z1 = SH, Z2 = H, Z3 = (1-naphthyl)methyl], S-methylation to III [Z1 = SMe, Z2 = H, Z3 = (1-naphthyl)methyl], N-alkylation with BzCH2C.tpbond.CMe to give III [Z1 = SMe, Z2 = CH2C.tpbond.CMe, Z3 = (1-naphthyl)methyl], S-oxidation to give III [Z1 = SO2Me, Z2 = CH2C.tpbond.CMe, Z3 = (1-naphthyl)methyl], amination with 3-(Boc-amino)piperidine and deprotection. The inhibitory effect of I (R1 = 3-aminopiperidino, R2 = 2-butenyl, R3 = (1-naphthyl)methyl, R4 = H) on the activity of the enzyme dipeptidylpeptidase-IV (DPP-IV) was tested [IC50 = 13 nM]. Formulations containing I in the forms of dragees, tablets, ampuls, hard-gel capsules, suppositories and suspensions are presented.

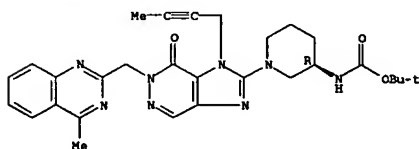
IT 705280-41-7P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT

L4 ANSWER 9 OF 26 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

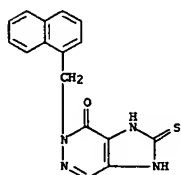


RN 705280-64-4 CAPLUS
CN Carbanic acid, [(3R)-1-[1-(2-butenyl)-6,7-dihydro-6-[(4-methyl-2-quinazolinyl)methyl]-7-oxo-1H-imidazo[4,5-d]pyridazin-2-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



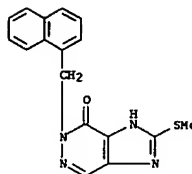
IT 705280-40-6P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and S-methylation of; preparation and use of novel substituted imidazopyridinones and imidazopyridazines as inhibitors of dipeptidylpeptidase IV)
RN 705280-40-6 CAPLUS
CN 4H-Imidazo[4,5-d]pyridazin-4-one, 1,2,3,5-tetrahydro-5-(1-naphthalenylmethyl)-2-thioxo- (9CI) (CA INDEX NAME)



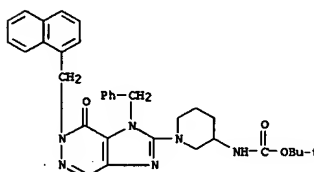
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L4 ANSWER 9 OF 26 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

(Reactant or reagent)
(prepn. and N-benzylation or alkylation of, with bromobutynes; prepn. and use of novel substituted imidazopyridinones and imidazopyridazines as inhibitors of dipeptidylpeptidase IV)
RN 705280-41-7 CAPLUS
CN 4H-Imidazo[4,5-d]pyridazin-4-one, 1,5-dihydro-2-(methylthio)-5-(1-naphthalenylmethyl)- (9CI) (CA INDEX NAME)



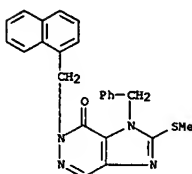
IT 705280-44-0P 705280-47-3P 705280-64-4P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and N-deprotection of; preparation and use of novel substituted imidazopyridinones and imidazopyridazines as inhibitors of dipeptidylpeptidase IV)
RN 705280-44-0 CAPLUS
CN Carbanic acid, [1-[6,7-dihydro-6-(1-naphthalenylmethyl)-7-oxo-1-(phenylmethyl)-1H-imidazo[4,5-d]pyridazin-2-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



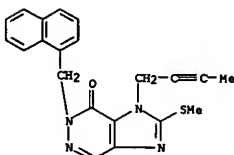
RN 705280-47-3 CAPLUS
CN Carbanic acid, [1-[1-(2-butenyl)-6,7-dihydro-6-(1-naphthalenylmethyl)-7-oxo-1H-imidazo[4,5-d]pyridazin-2-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

L4 ANSWER 9 OF 26 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

IT 705280-42-6P 705280-45-1P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and S-oxidation of; preparation and use of novel substituted imidazopyridinones and imidazopyridazines as inhibitors of dipeptidylpeptidase IV)
RN 705280-42-6 CAPLUS
CN 4H-Imidazo[4,5-d]pyridazin-4-one, 3,5-dihydro-2-(methylthio)-5-(1-naphthalenylmethyl)-3-(phenylmethyl)- (9CI) (CA INDEX NAME)



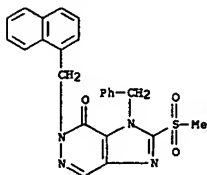
RN 705280-45-1 CAPLUS
CN 4H-Imidazo[4,5-d]pyridazin-4-one, 3-(2-butenyl)-3,5-dihydro-2-(methylthio)-5-(1-naphthalenylmethyl)- (9CI) (CA INDEX NAME)



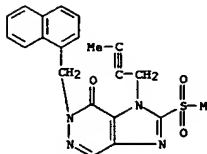
IT 705280-43-9P 705280-46-2P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and amination of, with aminopiperidine derivative; preparation and use of novel substituted imidazopyridinones and imidazopyridazines as inhibitors of dipeptidylpeptidase IV)
RN 705280-43-9 CAPLUS
CN 4H-Imidazo[4,5-d]pyridazin-4-one, 3,5-dihydro-2-(methylsulfonyl)-5-(1-naphthalenylmethyl)-3-(phenylmethyl)- (9CI) (CA INDEX NAME)

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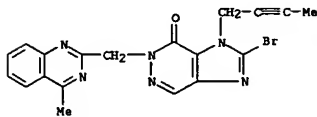
L4 ANSWER 9 OF 26 CAPLUS COPYRIGHT 2005 ACS ON STN (Continued)



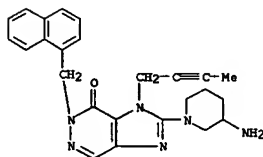
RN 705280-46-2 CAPLUS
CN 4H-imidazo[4,5-d]pyridazin-4-one, 3-(2-butynyl)-3,5-dihydro-2-(methylsulfonyl)-5-(1-naphthalenylmethyl)- (9CI) (CA INDEX NAME)



IT 705280-63-3P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and amination of, with chiral aminopiperidine derivative; preparation and use of novel substituted imidazopyridinones and imidazopyridazones as inhibitors of dipeptidylpeptidase IV)
RN 705280-63-3 CAPLUS
CN 4H-imidazo[4,5-d]pyridazin-4-one, 2-bromo-3-(2-butynyl)-3,5-dihydro-5-[(4-methyl-2-quinazolinyl)methyl]- (9CI) (CA INDEX NAME)

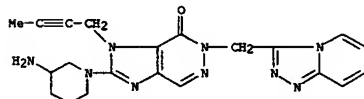


L4 ANSWER 9 OF 26 CAPLUS COPYRIGHT 2005 ACS ON STN (Continued)

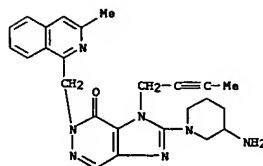


● HCl

RN 705279-83-0 CAPLUS
CN 4H-imidazo[4,5-d]pyridazin-4-one, 2-[(3R)-3-amino-1-piperidinyl]-3-(2-butynyl)-3,5-dihydro-5-[(1,2,4-triazolo[4,3-a]pyridin-3-yl)methyl]- (9CI) (CA INDEX NAME)



RN 705279-84-1 CAPLUS
CN 4H-imidazo[4,5-d]pyridazin-4-one, 2-[(3R)-3-amino-1-piperidinyl]-3-(2-butynyl)-3,5-dihydro-5-[(3-methyl-1-isoquinolinyl)methyl]- (9CI) (CA INDEX NAME)



RN 705279-87-4 CAPLUS
CN 4H-imidazo[4,5-d]pyridazin-4-one, 2-[(3R)-3-amino-1-piperidinyl]-3-(2-butynyl)-3,5-dihydro-5-(2-quinazolinylmethyl)- (9CI) (CA INDEX NAME)

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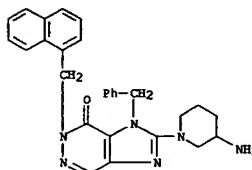
L4 ANSWER 9 OF 26 CAPLUS COPYRIGHT 2005 ACS ON STN (Continued)

IT 705279-79-4P 705279-80-7P 705279-83-0P
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705279-89-6P 705279-90-9P 705279-92-1P
705279-93-2P 705279-94-3P 705279-95-4P
705279-96-5P 705279-97-6P 705279-98-7P
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705280-73-5P 705280-74-6P 705280-75-7P
705280-76-8P 705280-77-9P 705280-78-0P
705280-79-1P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation and use of novel substituted imidazopyridinones and imidazopyridazones as inhibitors of dipeptidylpeptidase IV)

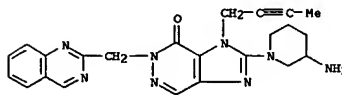
RN 705279-79-4 CAPLUS
CN 4H-imidazo[4,5-d]pyridazin-4-one, 2-(3-amino-1-piperidinyl)-3,5-dihydro-5-(1-naphthalenylmethyl)-3-(phenylmethyl)-, monohydrochloride (9CI) (CA INDEX NAME)



● HCl

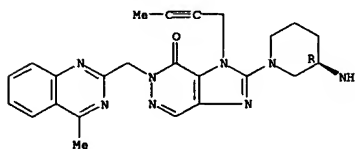
RN 705279-80-7 CAPLUS
CN 4H-imidazo[4,5-d]pyridazin-4-one, 2-(3-amino-1-piperidinyl)-3-(2-butynyl)-3,5-dihydro-5-(1-naphthalenylmethyl)-, monohydrochloride (9CI) (CA INDEX NAME)

L4 ANSWER 9 OF 26 CAPLUS COPYRIGHT 2005 ACS ON STN (Continued)



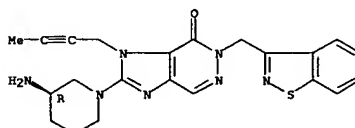
RN 705279-88-5 CAPLUS
CN 4H-imidazo[4,5-d]pyridazin-4-one, 2-[(3R)-3-amino-1-piperidinyl]-3-(2-butynyl)-3,5-dihydro-5-[(4-methyl-2-quinazolinyl)methyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 705279-89-6 CAPLUS
CN 4H-imidazo[4,5-d]pyridazin-4-one, 2-[(3R)-3-amino-1-piperidinyl]-5-(1,2-benzisothiazol-3-ylmethyl)-3-(2-butynyl)-3,5-dihydro- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

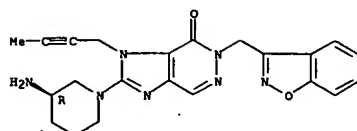


RN 705279-90-9 CAPLUS
CN 4H-imidazo[4,5-d]pyridazin-4-one, 2-[(3R)-3-amino-1-piperidinyl]-5-(1,2-benzisoxazol-3-ylmethyl)-3-(2-butynyl)-3,5-dihydro- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

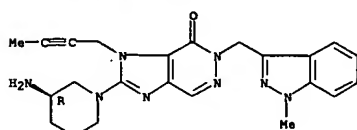
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L4 ANSWER 9 OF 26 CAPLUS COPYRIGHT 2005 ACS ON STN (Continued)

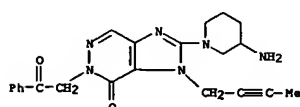


RN 705279-92-1 CAPLUS
 CN 4H-imidazo[4,5-d]pyridazin-4-one, 2-[(3R)-3-amino-1-piperidinyl]-3-(2-butynyl)-3,5-dihydro-5-[(1-methyl-1H-indazol-3-yl)methyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

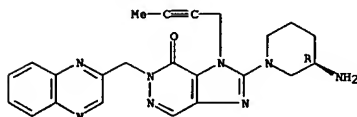


RN 705279-93-2 CAPLUS
 CN 4H-imidazo[4,5-d]pyridazin-4-one, 2-[(3R)-3-amino-1-piperidinyl]-3-(2-butynyl)-3,5-dihydro-5-(2-oxo-2-phenylethyl)- (9CI) (CA INDEX NAME)



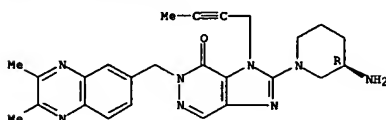
RN 705279-94-3 CAPLUS
 CN 4H-imidazo[4,5-d]pyridazin-4-one, 2-[(3R)-3-amino-1-piperidinyl]-3-(2-butynyl)-3,5-dihydro-5-(6-quinoxalinylmethyl)- (9CI) (CA INDEX NAME)

L4 ANSWER 9 OF 26 CAPLUS COPYRIGHT 2005 ACS ON STN (Continued)



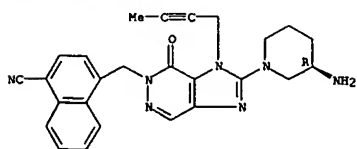
RN 705279-98-7 CAPLUS
 CN 4H-imidazo[4,5-d]pyridazin-4-one, 2-[(3R)-3-amino-1-piperidinyl]-3-(2-butynyl)-5-[(2,3-dimethyl-6-quinoxalinylmethyl)-3,5-dihydro- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 705279-99-8 CAPLUS
 CN 1-naphthalenecarbonitrile, 4-[[2-[(3R)-3-amino-1-piperidinyl]-3-(2-butynyl)-3,4-dihydro-4-oxo-5H-imidazo[4,5-d]pyridazin-5-yl]methyl]- (9CI) (CA INDEX NAME)

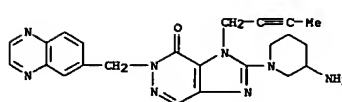
Absolute stereochemistry.



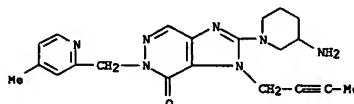
RN 705280-01-9 CAPLUS
 CN 4H-imidazo[4,5-d]pyridazin-4-one, 2-[(3R)-3-amino-1-piperidinyl]-3,5-dihydro-3-(3-methyl-2-butenyl)-5-(2-oxo-2-phenylethyl)- (9CI) (CA INDEX NAME)

<12/21/2005>

L4 ANSWER 9 OF 26 CAPLUS COPYRIGHT 2005 ACS ON STN (Continued)

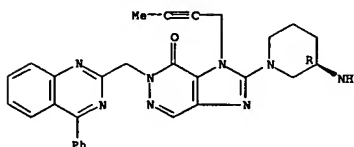


RN 705279-95-4 CAPLUS
 CN 4H-imidazo[4,5-d]pyridazin-4-one, 2-[(3R)-3-amino-1-piperidinyl]-3-(2-butynyl)-3,5-dihydro-5-[(4-methyl-2-pyridinyl)methyl]- (9CI) (CA INDEX NAME)



RN 705279-96-5 CAPLUS
 CN 4H-imidazo[4,5-d]pyridazin-4-one, 2-[(3R)-3-amino-1-piperidinyl]-3-(2-butynyl)-3,5-dihydro-5-[(4-phenyl-2-quinazolinyl)methyl]- (9CI) (CA INDEX NAME)

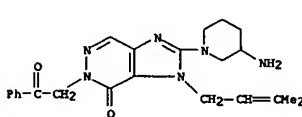
Absolute stereochemistry.



RN 705279-97-6 CAPLUS
 CN 4H-imidazo[4,5-d]pyridazin-4-one, 2-[(3R)-3-amino-1-piperidinyl]-3-(2-butynyl)-3,5-dihydro-5-(2-quinoxalinylmethyl)- (9CI) (CA INDEX NAME)

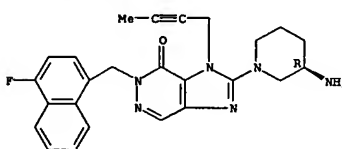
Absolute stereochemistry.

L4 ANSWER 9 OF 26 CAPLUS COPYRIGHT 2005 ACS ON STN (Continued)



RN 705280-03-1 CAPLUS
 CN 4H-imidazo[4,5-d]pyridazin-4-one, 2-[(3R)-3-amino-1-piperidinyl]-3-(2-butynyl)-5-[(4-fluoro-1-naphthalenyl)methyl]-3,5-dihydro-, monohydrochloride (9CI) (CA INDEX NAME)

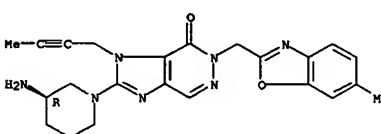
Absolute stereochemistry.



● HCl

RN 705280-04-2 CAPLUS
 CN 4H-imidazo[4,5-d]pyridazin-4-one, 2-[(3R)-3-amino-1-piperidinyl]-3-(2-butynyl)-3,5-dihydro-5-[(6-methyl-2-benzoxazolyl)methyl]-, monohydrochloride (9CI) (CA INDEX NAME)

Absolute stereochemistry.



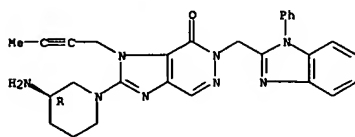
● HCl

RN 705280-05-3 CAPLUS
 CN 4H-imidazo[4,5-d]pyridazin-4-one, 2-[(3R)-3-amino-1-piperidinyl]-3-(2-

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L4 ANSWER 9 OF 26 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
butynyl)-3,5-dihydro-5-[(1-phenyl-1H-benzimidazol-2-yl)methyl]-,
monohydrochloride (9CI) (CA INDEX NAME)

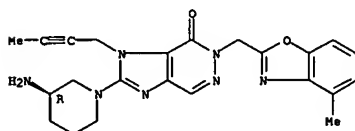
Absolute stereochemistry.



● HCl

RN 705280-06-4 CAPLUS
CN 4H-Imidazo[4,5-d]pyridazin-4-one, 2-[(3R)-3-amino-1-piperidinyl]-3-(2-butynyl)-3,5-dihydro-5-[(4-methyl-2-benzoxazolyl)methyl]-,
monohydrochloride (9CI) (CA INDEX NAME)

Absolute stereochemistry.

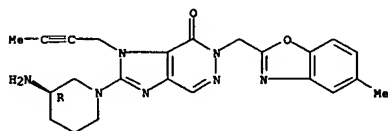


● HCl

RN 705280-07-5 CAPLUS
CN 4H-Imidazo[4,5-d]pyridazin-4-one, 2-[(3R)-3-amino-1-piperidinyl]-3-(2-butynyl)-3,5-dihydro-5-[(5-(trifluoromethyl)-2-benzothiazolyl)methyl]-,
monohydrochloride (9CI) (CA INDEX NAME)

Absolute stereochemistry.

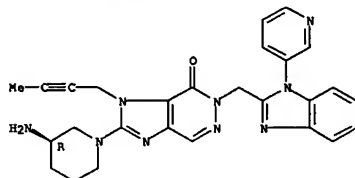
L4 ANSWER 9 OF 26 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



● HCl

RN 705280-10-0 CAPLUS
CN 4H-Imidazo[4,5-d]pyridazin-4-one, 2-[(3R)-3-amino-1-piperidinyl]-3-(2-butynyl)-3,5-dihydro-5-[(1-(3-pyridinyl)-1H-benzimidazol-2-yl)methyl]-,
monohydrochloride (9CI) (CA INDEX NAME)

Absolute stereochemistry.

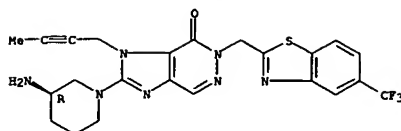


● HCl

RN 705280-11-1 CAPLUS
CN 4H-Imidazo[4,5-d]pyridazin-4-one, 2-[(3R)-3-amino-1-piperidinyl]-3-(2-butynyl)-5-[(5,7-dimethyl-2-benzoxazolyl)methyl]-3,5-dihydro-,
monohydrochloride (9CI) (CA INDEX NAME)

Absolute stereochemistry.

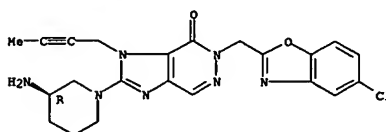
L4 ANSWER 9 OF 26 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



● HCl

RN 705280-08-6 CAPLUS
CN 4H-Imidazo[4,5-d]pyridazin-4-one, 2-[(3R)-3-amino-1-piperidinyl]-3-(2-butynyl)-5-[(5-chloro-2-benzoxazolyl)methyl]-3,5-dihydro-,
monohydrochloride (9CI) (CA INDEX NAME)

Absolute stereochemistry.

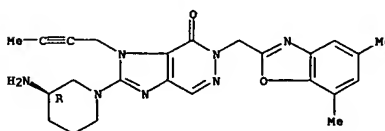


● HCl

RN 705280-09-7 CAPLUS
CN 4H-Imidazo[4,5-d]pyridazin-4-one, 2-[(3R)-3-amino-1-piperidinyl]-3-(2-butynyl)-3,5-dihydro-5-[(5-methyl-2-benzoxazolyl)methyl]-,
monohydrochloride (9CI) (CA INDEX NAME)

Absolute stereochemistry.

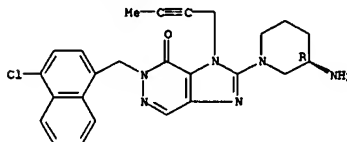
L4 ANSWER 9 OF 26 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



● HCl

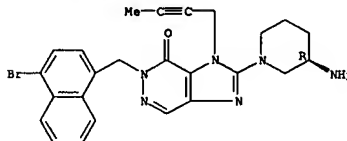
RN 705280-12-2 CAPLUS
CN 4H-Imidazo[4,5-d]pyridazin-4-one, 2-[(3R)-3-amino-1-piperidinyl]-3-(2-butynyl)-5-[(4-chloro-1-naphthalenyl)methyl]-3,5-dihydro-, monohydrochloride (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 705280-13-3 CAPLUS
CN 4H-Imidazo[4,5-d]pyridazin-4-one, 2-[(3R)-3-amino-1-piperidinyl]-5-[(4-bromo-1-naphthalenyl)methyl]-3-(2-butynyl)-3,5-dihydro-, monohydrochloride (9CI) (CA INDEX NAME)

Absolute stereochemistry.



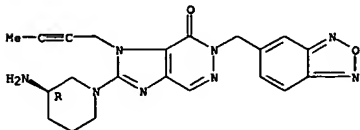
● HCl

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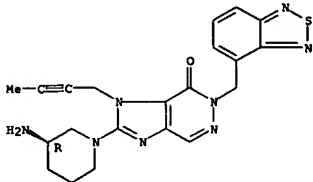
L4 ANSWER 9 OF 26 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
 RN 705280-14-4 CAPLUS
 CN 4H-imidazo[4,5-d]pyridazin-4-one, 2-[(3R)-3-amino-1-piperidinyl]-5-(2,1,3-benzoxadiazol-5-ylmethyl)-3-(2-butynyl)-3,5-dihydro- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 705280-15-5 CAPLUS
 CN 4H-imidazo[4,5-d]pyridazin-4-one, 2-[(3R)-3-amino-1-piperidinyl]-5-(2,1,3-benzothiadiazol-4-ylmethyl)-3-(2-butynyl)-3,5-dihydro- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

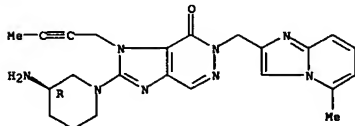


RN 705280-16-6 CAPLUS
 CN 4H-imidazo[4,5-d]pyridazin-4-one, 2-[(3R)-3-amino-1-piperidinyl]-5-(2,1,3-benzothiadiazol-5-ylmethyl)-3-(2-butynyl)-3,5-dihydro- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

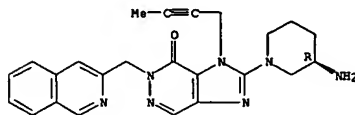
L4 ANSWER 9 OF 26 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
 RN 705280-19-9 CAPLUS
 CN 4H-imidazo[4,5-d]pyridazin-4-one, 2-[(3R)-3-amino-1-piperidinyl]-3-(2-butynyl)-3,5-dihydro-5-[(5-methylimidazo[1,2-a]pyridin-2-yl)methyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



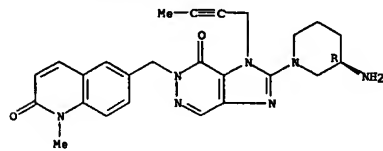
RN 705280-20-2 CAPLUS
 CN 4H-imidazo[4,5-d]pyridazin-4-one, 2-[(3R)-3-amino-1-piperidinyl]-3-(2-butynyl)-3,5-dihydro-5-(3-isoquinolinylmethyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 705280-21-3 CAPLUS
 CN 2(1H)-Quinolone, 6-[[2-[(3R)-3-amino-1-piperidinyl]-3-(2-butynyl)-3,4-dihydro-4-oxo-5H-imidazo[4,5-d]pyridazin-5-yl)methyl]-1-methyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

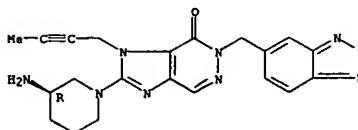


RN 705280-22-4 CAPLUS
 CN 4H-imidazo[4,5-d]pyridazin-4-one, 2-[(3R)-3-amino-1-piperidinyl]-3-(2-butynyl)-3,5-dihydro-5-[(2-methyl-2H-indazol-3-yl)methyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

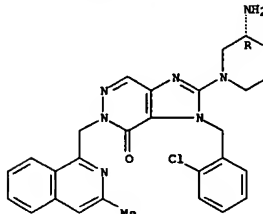
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L4 ANSWER 9 OF 26 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



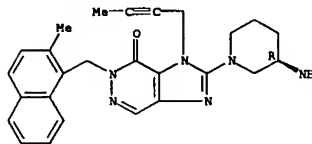
RN 705280-17-7 CAPLUS
 CN 4H-imidazo[4,5-d]pyridazin-4-one, 2-[(3R)-3-amino-1-piperidinyl]-3-[(2-chlorophenyl)methyl]-3,5-dihydro-5-[(3-methyl-1-isoquinolinyl)methyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

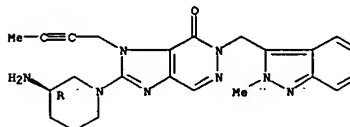


RN 705280-18-8 CAPLUS
 CN 4H-imidazo[4,5-d]pyridazin-4-one, 2-[(3R)-3-amino-1-piperidinyl]-3-(2-butynyl)-3,5-dihydro-5-[(2-methyl-1-naphthalenyl)methyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

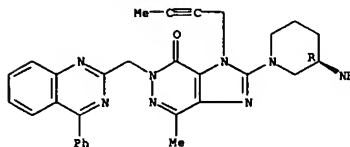


L4 ANSWER 9 OF 26 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



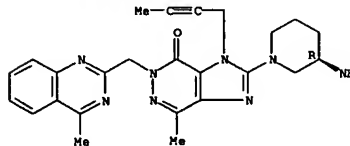
RN 705280-23-5 CAPLUS
 CN 4H-imidazo[4,5-d]pyridazin-4-one, 2-[(3R)-3-amino-1-piperidinyl]-3-(2-butynyl)-3,5-dihydro-7-methyl-5-[(4-phenyl-2-quinazolinyl)methyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 705280-24-6 CAPLUS
 CN 4H-imidazo[4,5-d]pyridazin-4-one, 2-[(3R)-3-amino-1-piperidinyl]-3-(2-butynyl)-3,5-dihydro-7-methyl-5-[(4-methyl-2-quinazolinyl)methyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

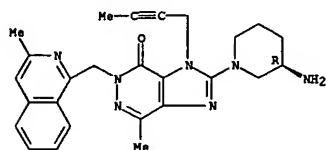


RN 705280-25-7 CAPLUS
 CN 4H-imidazo[4,5-d]pyridazin-4-one, 2-[(3R)-3-amino-1-piperidinyl]-3-(2-butynyl)-3,5-dihydro-7-methyl-5-[(3-methyl-1-isoquinolinyl)methyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

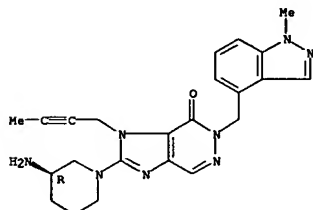
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L4 ANSWER 9 OF 26 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



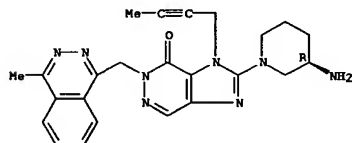
RN 705280-26-8 CAPLUS
CN 4H-imidazo[4,5-d]pyridazin-4-one, 2-[(3R)-3-amino-1-piperidinyl]-3-(2-butynyl)-3,5-dihydro-5-[(1-methyl-1H-indazol-4-yl)methyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

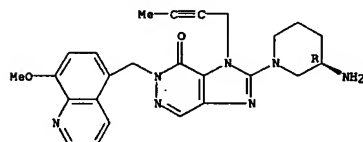


RN 705280-27-9 CAPLUS
CN 4H-imidazo[4,5-d]pyridazin-4-one, 2-[(3R)-3-amino-1-piperidinyl]-3-(2-butynyl)-3,5-dihydro-5-[(4-methyl-1-phthalazinyl)methyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

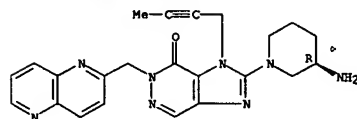


L4 ANSWER 9 OF 26 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



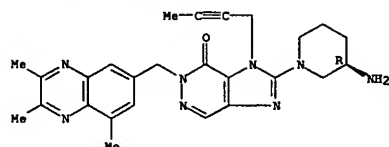
RN 705280-31-5 CAPLUS
CN 4H-imidazo[4,5-d]pyridazin-4-one, 2-[(3R)-3-amino-1-piperidinyl]-3-(2-butynyl)-3,5-dihydro-5-[(1,5-naphthyridin-2-yl)methyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 705280-32-6 CAPLUS
CN 4H-imidazo[4,5-d]pyridazin-4-one, 2-[(3R)-3-amino-1-piperidinyl]-3-(2-butynyl)-3,5-dihydro-5-[(2,3,8-trimethyl-6-quinoxaliny)methyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 705280-33-7 CAPLUS
CN 4H-imidazo[4,5-d]pyridazin-4-one, 2-[(3R)-3-amino-1-piperidinyl]-3-(2-butynyl)-3,5-dihydro-5-[(4-(4-morpholinyl)-2-quinazolinyl)methyl]- (9CI) (CA INDEX NAME)

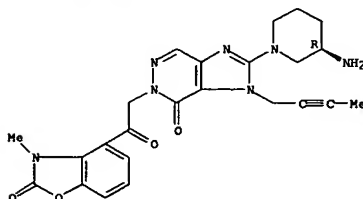
Absolute stereochemistry.

<12/21/2005>

L4 ANSWER 9 OF 26 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

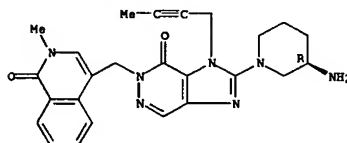
RN 705280-28-0 CAPLUS
CN 4H-imidazo[4,5-d]pyridazin-4-one, 2-[(3R)-3-amino-1-piperidinyl]-3-(2-butynyl)-5-[(2-(2,3-dihydro-3-methyl-2-oxo-4-benzoxazolyl)-2-oxoethyl)-3,5-dihydro- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 705280-29-1 CAPLUS
CN 1(2H)-isquinolinone, 4-[[2-[(3R)-3-amino-1-piperidinyl]-3-(2-butynyl)-3,4-dihydro-4-oxo-5H-imidazo[4,5-d]pyridazin-5-yl)methyl]-2-methyl- (9CI) (CA INDEX NAME)

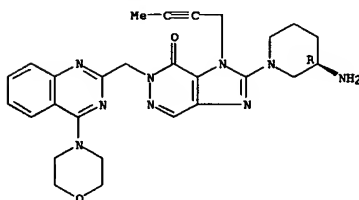
Absolute stereochemistry.



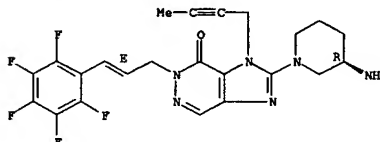
RN 705280-30-4 CAPLUS
CN 4H-imidazo[4,5-d]pyridazin-4-one, 2-[(3R)-3-amino-1-piperidinyl]-3-(2-butynyl)-3,5-dihydro-5-[(8-methoxy-5-quinolinyl)methyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

L4 ANSWER 9 OF 26 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

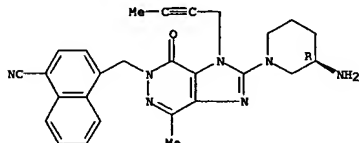


RN 705280-34-8 CAPLUS
CN 4H-imidazo[4,5-d]pyridazin-4-one, 2-[(3R)-3-amino-1-piperidinyl]-3-(2-butynyl)-3,5-dihydro-5-[(2E)-3-(pentafluorophenyl)-2-propenyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

RN 705280-35-9 CAPLUS
CN 1-Naphthalenecarbonitrile, 4-[[2-[(3R)-3-amino-1-piperidinyl]-3-(2-butynyl)-3,4-dihydro-7-methyl-4-oxo-5H-imidazo[4,5-d]pyridazin-5-yl)methyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

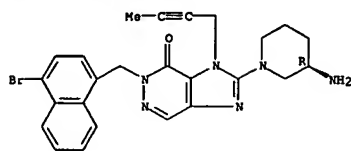


RN 705280-66-6 CAPLUS
CN 4H-imidazo[4,5-d]pyridazin-4-one, 2-[(3R)-3-amino-1-piperidinyl]-5-[(4-bromo-1-naphthalenyl)methyl]-3-(2-butynyl)-3,5-dihydro- (9CI) (CA INDEX NAME)

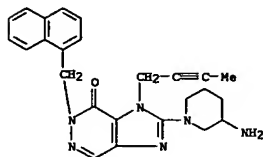
Habe

L4 ANSWER 9 OF 26 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
NAME)

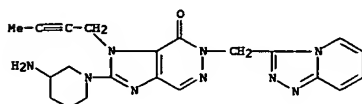
Absolute stereochemistry.



RN 705280-67-7 CAPLUS
CN 4H-imidazo[4,5-d]pyridazin-4-one, 2-[(3-amino-1-piperidinyl)-3-(2-butynyl)-3,5-dihydro-5-(1-naphthalenyl)methyl]- (9CI) (CA INDEX NAME)



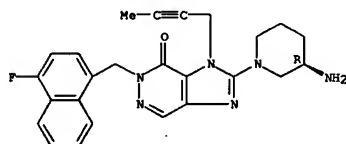
RN 705280-68-8 CAPLUS
CN 4H-imidazo[4,5-d]pyridazin-4-one, 2-[(3-amino-1-piperidinyl)-3-(2-butynyl)-3,5-dihydro-5-(1,2,4-triazolo[4,3-a]pyridin-3-yl)methyl]-, monohydrochloride (9CI) (CA INDEX NAME)



● HCl

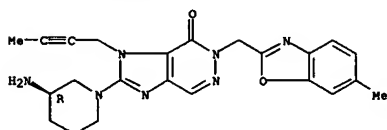
RN 705280-69-9 CAPLUS

L4 ANSWER 9 OF 26 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



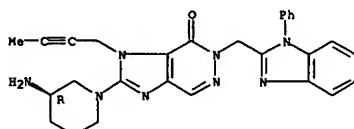
RN 705280-72-4 CAPLUS
CN 4H-imidazo[4,5-d]pyridazin-4-one, 2-[(3-amino-1-piperidinyl)-3-(2-butynyl)-3,5-dihydro-5-[(6-methyl-2-benzoxazolyl)methyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 705280-73-5 CAPLUS
CN 4H-imidazo[4,5-d]pyridazin-4-one, 2-[(3-amino-1-piperidinyl)-3-(2-butynyl)-3,5-dihydro-5-[(1-phenyl-1H-benzimidazol-2-yl)methyl]- (9CI) (CA INDEX NAME)

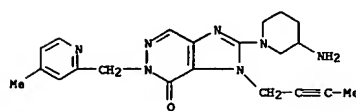
Absolute stereochemistry.



RN 705280-74-6 CAPLUS
CN 4H-imidazo[4,5-d]pyridazin-4-one, 2-[(3-amino-1-piperidinyl)-3-(2-butynyl)-3,5-dihydro-5-[(4-methyl-2-benzoxazolyl)methyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

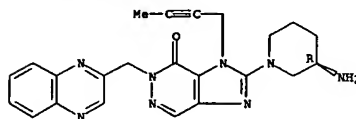
L4 ANSWER 9 OF 26 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
CN 4H-imidazo[4,5-d]pyridazin-4-one, 2-[(3-amino-1-piperidinyl)-3-(2-butynyl)-3,5-dihydro-5-[(4-methyl-2-pyridinyl)methyl]-, dihydrochloride (9CI) (CA INDEX NAME)



● 2 HCl

RN 705280-70-2 CAPLUS
CN 4H-imidazo[4,5-d]pyridazin-4-one, 2-[(3-amino-1-piperidinyl)-3-(2-butynyl)-3,5-dihydro-5-(2-quinoxalinylmethyl)-, monohydrochloride (9CI) (CA INDEX NAME)

Absolute stereochemistry.

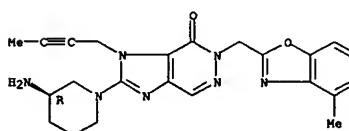


● HCl

RN 705280-71-3 CAPLUS
CN 4H-imidazo[4,5-d]pyridazin-4-one, 2-[(3-amino-1-piperidinyl)-3-(2-butynyl)-5-[(4-fluoro-1-naphthalenyl)methyl]-3,5-dihydro- (9CI) (CA INDEX NAME)

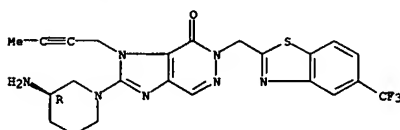
Absolute stereochemistry.

L4 ANSWER 9 OF 26 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



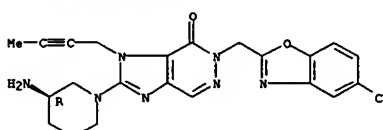
RN 705280-75-7 CAPLUS
CN 4H-imidazo[4,5-d]pyridazin-4-one, 2-[(3-amino-1-piperidinyl)-3-(2-butynyl)-3,5-dihydro-5-[(5-(trifluoromethyl)-2-benzothiazolyl)methyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 705280-76-8 CAPLUS
CN 4H-imidazo[4,5-d]pyridazin-4-one, 2-[(3-amino-1-piperidinyl)-3-(2-butynyl)-5-[(5-methyl-2-benzoxazolyl)methyl]-3,5-dihydro- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



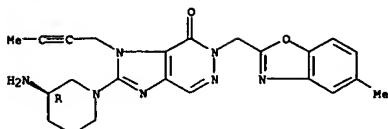
RN 705280-77-9 CAPLUS
CN 4H-imidazo[4,5-d]pyridazin-4-one, 2-[(3-amino-1-piperidinyl)-3-(2-butynyl)-3,5-dihydro-5-[(5-methyl-2-benzoxazolyl)methyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

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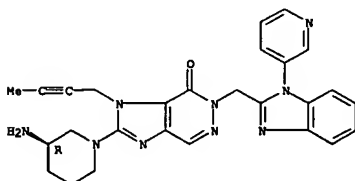
L4 ANSWER 9 OF 26 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



RN 705280-78-0 CAPLUS

CN 4H-imidazo[4,5-d]pyridazin-4-one, 2-[(3R)-3-amino-1-piperidinyl]-3-(2-butynyl)-5,5-dihydro-5-[[1-(3-pyridinyl)-1H-benzimidazol-2-yl)methyl]- (9CI) (CA INDEX NAME)

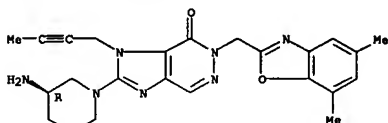
Absolute stereochemistry.



RN 705280-79-1 CAPLUS

CN 4H-imidazo[4,5-d]pyridazin-4-one, 2-[(3R)-3-amino-1-piperidinyl]-3-(2-butynyl)-5,5-dihydro-5-[[1-(3-pyridinyl)-1H-benzimidazol-2-yl)methyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

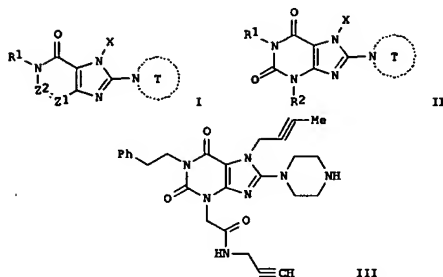
L4 ANSWER 10 OF 26 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2004:287778 CAPLUS
 DOCUMENT NUMBER: 140:303701
 TITLE: Preparation of piperazine derivatives as dipeptidyl
 peptidase IV inhibitors
 INVENTOR(S): Yasuda, Nobuyuki; Yamazaki, Kazuo
 PATENT ASSIGNEE(S): Eisai Co., Ltd., Japan
 SOURCE: PCT Int. Appl., 302 pp.
 CODEN: PFXK02
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004028524	A1	20040408	WO 2003-JP12075	20030922
V: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MY, NZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2498423	AA	20040408	CA 2003-2498423	20030922
EP 1557165	A1	20050727	EP 2003-798438	20030922
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BR 2003014655	A	20050802	BR 2003-14655	20030922
NO 2005002018	A	20050622	NO 2005-2018	20050425
PRIORITY APPLN. INFO.: JP 2002-280137 A 20020926				
JP 2003-117927 A 20030423				
WO 2003-JP12075 W 20030922				

OTHER SOURCE(S): HARPAT 140:303701
GI

L4 ANSWER 9 OF 26 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



AB The title compds. I and II (wherein ring T = (un)substituted heterocyclyl; X = (un)substituted alkyl, alkenyl, alkynyl, aryl, heteroaryl, arylalkyl, or heteroarylalkyl; 21 and 22 = independently N or (un)substituted CH; R1 and R2 = independently H, (un)substituted alkyl, etc.) or salts or hydrates thereof are prepared as dipeptidyl peptidase (DPP) IV inhibitors in combination with biguanide. For example, the compound III-HCl was prepared in a multi-step synthesis. III-HCl showed inhibitory activity with IC50 of 0.472 nM against DPP IV in pig. I are useful for the treatment of diabetes, obesity, hyperlipidemia, gastrointestinal disturbance, etc.

IT 635717-65-6P 635717-66-7P 635717-68-9P
 635717-75-8P 635717-76-9P 635720-48-8P
 635720-64-8P 635720-65-9P 635720-66-0P
 635721-30-1P 635721-56-1P 635721-60-7P
 635722-02-0P 635722-43-9P

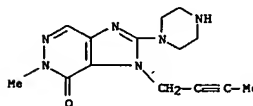
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(drug candidate; preparation of piperazine derivs. as dipeptidyl peptidase

IV inhibitors)

RN 635717-65-6 CAPLUS

CN 4H-imidazo[4,5-d]pyridazin-4-one, 3-(2-butynyl)-3,5-dihydro-5-methyl-2-(1-piperazinyl)- (9CI) (CA INDEX NAME)



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<12/21/2005>

L4 ANSWER 10 OF 26 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

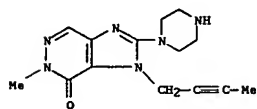
RN 635717-66-7 CAPLUS

CN 4H-imidazo[4,5-d]pyridazin-4-one, 3-(2-butyryl)-3,5-dihydro-5-methyl-2-(1-piperazinyl)-, mono(trifluoroacetate) (9CI) (CA INDEX NAME)

CM 1

CRN 635717-65-6

CMF C14 H18 N6 O



CM 2

CRN 76-05-1

CMF C2 H F3 O2



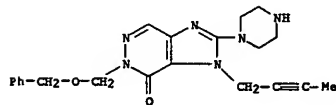
RN 635717-68-9 CAPLUS

CN 4H-imidazo[4,5-d]pyridazin-4-one, 3-(2-butyryl)-3,5-dihydro-5-[(phenylmethoxy)methyl]-2-(1-piperazinyl)-, mono(trifluoroacetate) (9CI) (CA INDEX NAME)

CM 1

CRN 635717-67-8

CMF C21 H24 N6 O2



L4 ANSWER 10 OF 26 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



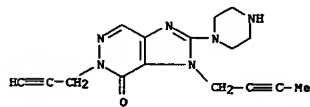
RN 635720-48-8 CAPLUS

CN 4H-imidazo[4,5-d]pyridazin-4-one, 3-(2-butyryl)-3,5-dihydro-2-(1-piperazinyl)-5-(2-propynyl)-, mono(trifluoroacetate) (9CI) (CA INDEX NAME)

CM 1

CRN 635720-47-7

CMF C16 H18 N6 O



CM 2

CRN 76-05-1

CMF C2 H F3 O2



RN 635720-64-8 CAPLUS

CN 4H-imidazo[4,5-d]pyridazin-4-one, 3-(2-butyryl)-3,5-dihydro-5-[2-(3-methoxyphenyl)-2-oxoethyl]-2-(1-piperazinyl)-, mono(trifluoroacetate) (9CI) (CA INDEX NAME)

CM 1

CRN 635720-63-7

CMF C22 H24 N6 O3

L4 ANSWER 10 OF 26 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

CM 2

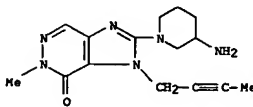
CRN 76-05-1

CMF C2 H F3 O2



RN 635717-75-8 CAPLUS

CN 4H-imidazo[4,5-d]pyridazin-4-one, 2-(3-amino-1-piperidinyl)-3-(2-butyryl)-3,5-dihydro-5-methyl- (9CI) (CA INDEX NAME)



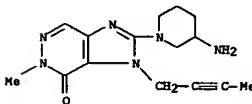
RN 635717-76-9 CAPLUS

CN 4H-imidazo[4,5-d]pyridazin-4-one, 2-(3-amino-1-piperidinyl)-3-(2-butyryl)-3,5-dihydro-5-methyl-, mono(trifluoroacetate) (9CI) (CA INDEX NAME)

CM 1

CRN 635717-75-8

CMF C15 H20 N6 O

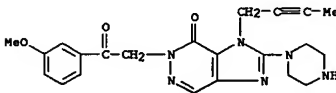


CM 2

CRN 76-05-1

CMF C2 H F3 O2

L4 ANSWER 10 OF 26 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



CM 2

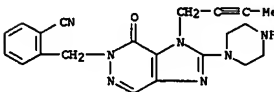
CRN 76-05-1

CMF C2 H F3 O2



RN 635720-65-9 CAPLUS

CN Benzonitrile, 2-[[3-(2-butyryl)-3,4-dihydro-4-oxo-2-(1-piperazinyl)-5H-imidazo[4,5-d]pyridazin-5-yl)methyl]- (9CI) (CA INDEX NAME)



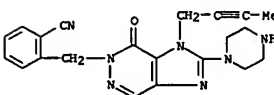
RN 635720-66-0 CAPLUS

CN Benzonitrile, 2-[[3-(2-butyryl)-3,4-dihydro-4-oxo-2-(1-piperazinyl)-5H-imidazo[4,5-d]pyridazin-5-yl)methyl]-, mono(trifluoroacetate) (9CI) (CA INDEX NAME)

CM 1

CRN 635720-65-9

CMF C21 H21 N7 O



<12/21/2005>

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L4 ANSWER 10 OF 26 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

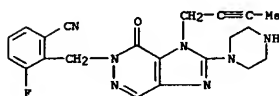
CRN 76-05-1
CMF C2 H F3 O2



RN 635721-30-1 CAPLUS
CN Benzonitrile, 2-[[3-(2-butynyl)-3,4-dihydro-4-oxo-2-(1-piperazinyl)-5H-imidazo[4,5-d]pyridazin-5-yl]methyl]-3-fluoro-, mono(trifluoroacetate) (9CI) (CA INDEX NAME)

CM 1

CRN 635721-29-8
CMF C21 H20 F N7 O



CM 2

CRN 76-05-1
CMF C2 H F3 O2



RN 635721-56-1 CAPLUS
CN 4H-Imidazo[4,5-d]pyridazin-4-one, 3,5-dihydro-5-methyl-3-(phenylmethyl)-2-(1-piperazinyl)-, mono(trifluoroacetate) (9CI) (CA INDEX NAME)

CM 1

CRN 635721-55-0
CMF C17 H20 N6 O

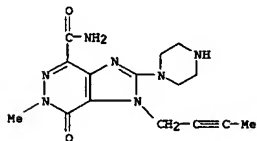
L4 ANSWER 10 OF 26 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



RN 635722-02-0 CAPLUS
CN 1H-Imidazo[4,5-d]pyridazine-4-carboxamide, 1-(2-butynyl)-6,7-dihydro-6-methyl-7-oxo-2-(1-piperazinyl)-, mono(trifluoroacetate) (9CI) (CA INDEX NAME)

CM 1

CRN 635722-01-9
CMF C15 H19 N7 O2



CM 2

CRN 76-05-1
CMF C2 H F3 O2

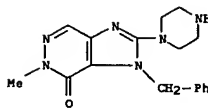


RN 635722-43-9 CAPLUS
CN 4H-Imidazo[4,5-d]pyridazin-4-one, 3-(2-butynyl)-3,5-dihydro-5-methyl-2-(1-piperazinyl)-, mono(4-methylbenzenesulfonate) (9CI) (CA INDEX NAME)

CM 1

CRN 635717-65-6
CMF C14 H18 N6 O

L4 ANSWER 10 OF 26 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



CM 2

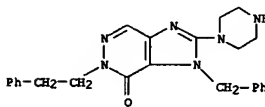
CRN 76-05-1
CMF C2 H F3 O2



RN 635721-60-7 CAPLUS
CN 4H-Imidazo[4,5-d]pyridazin-4-one, 3,5-dihydro-5-(2-phenylethyl)-3-(phenylmethyl)-2-(1-piperazinyl)-, mono(trifluoroacetate) (9CI) (CA INDEX NAME)

CM 1

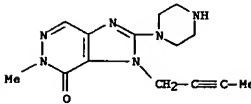
CRN 635721-59-4
CMF C24 H26 N6 O



CM 2

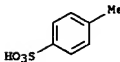
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CMF C2 H F3 O2

L4 ANSWER 10 OF 26 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



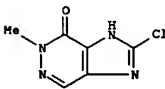
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CMF C7 H8 O3 S

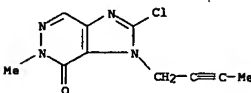


IT 635722-45-1P 635722-46-2P 635722-47-3P
635722-77-9P 635722-78-0P 635722-82-6P
635723-02-3P 635723-14-7P 635723-79-4P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(intermediate; preparation of piperazine derivs. as dipeptidyl peptidase

IV inhibitors)
RN 635722-45-1 CAPLUS
CN 4H-Imidazo[4,5-d]pyridazin-4-one, 2-chloro-1,5-dihydro-5-methyl- (9CI) (CA INDEX NAME)



RN 635722-46-2 CAPLUS
CN 4H-Imidazo[4,5-d]pyridazin-4-one, 3-(2-butynyl)-2-chloro-3,5-dihydro-5-methyl- (9CI) (CA INDEX NAME)



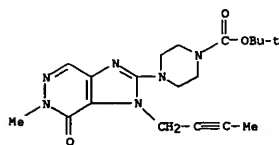
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L4 ANSWER 10 OF 26 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

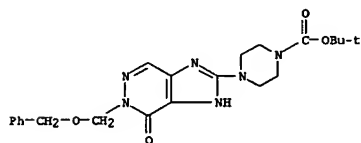
RN 635722-47-3 CAPLUS

CN 1-Piperazinecarboxylic acid, 4-[1-(2-butynyl)-6,7-dihydro-6-methyl-7-oxo-1H-imidazo[4,5-d]pyridazin-2-yl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



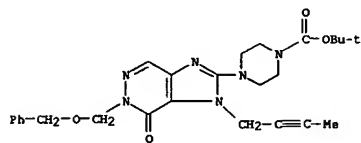
RN 635722-77-9 CAPLUS

CN 1-Piperazinecarboxylic acid, 4-[4,5-dihydro-4-oxo-5-[(phenylmethoxy)methyl]-1H-imidazo[4,5-d]pyridazin-2-yl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

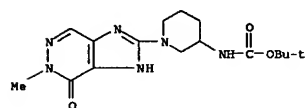


RN 635722-78-0 CAPLUS

CN 1-Piperazinecarboxylic acid, 4-[1-(2-butynyl)-6,7-dihydro-7-oxo-6-[(phenylmethoxy)methyl]-1H-imidazo[4,5-d]pyridazin-2-yl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

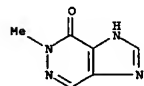


L4 ANSWER 10 OF 26 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



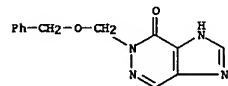
IT 76756-50-6 82137-50-6

RL: RCT (Reactant); RACT (Reactant or reagent)
 (preparation of piperazine derivs. as dipeptidyl peptidase IV inhibitors)
 RN 76756-50-6 CAPLUS
 CN 4H-imidazo[4,5-d]pyridazin-4-one, 1,5-dihydro-5-methyl- (9CI) (CA INDEX NAME)



RN 82137-50-6 CAPLUS

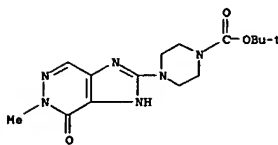
CN 4H-imidazo[4,5-d]pyridazin-4-one, 1,5-dihydro-5-[(phenylmethoxy)methyl]- (9CI) (CA INDEX NAME)



L4 ANSWER 10 OF 26 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

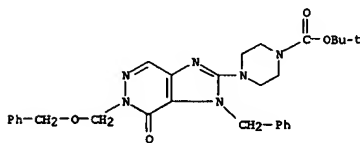
RN 635722-82-6 CAPLUS

CN 1-Piperazinecarboxylic acid, 4-[(4,5-dihydro-5-methyl-4-oxo-1H-imidazo[4,5-d]pyridazin-2-yl)-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



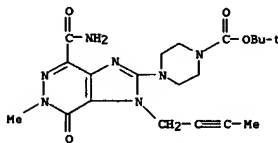
RN 635723-02-3 CAPLUS

CN 1-Piperazinecarboxylic acid, 4-[6,7-dihydro-7-oxo-6-[(phenylmethoxy)methyl]-1-(phenylmethoxy)-1H-imidazo[4,5-d]pyridazin-2-yl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



RN 635723-14-7 CAPLUS

CN 1-Piperazinecarboxylic acid, 4-[4-(aminocarbonyl)-1-(2-butynyl)-6,7-dihydro-6-methyl-7-oxo-1H-imidazo[4,5-d]pyridazin-2-yl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



RN 635723-79-4 CAPLUS

CN Carbamic acid, [1-(4,5-dihydro-5-methyl-4-oxo-1H-imidazo[4,5-d]pyridazin-2-

L4 ANSWER 11 OF 26 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2003:991509 CAPLUS

DOCUMENT NUMBER: 140:42192

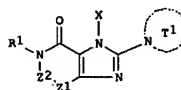
TITLE:

Preparation of purinone derivatives as
 dipeptidylpeptidase IV (DPP-IV) inhibitors
 INVENTOR(S): Yoshikawa, Seiji; Emori, Eita; Matsuura, Fumiyoshi;
 Richard, Clark; Ikuta, Hiromori; Kira, Kazunobu;
 Yasuda, Nobuyuki; Nagakura, Tadashi; Yamazaki, Kazuo
 PATENT ASSIGNEE(S): Eisai Co., Ltd., Japan
 SOURCE: PCT Int. Appl., 376 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003104229	A1	20031218	WO 2003-JP7010	20030603
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MY, NZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
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EP 1514552	A1	20050316	EP 2003-733276	20030603
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BR 2003011697	A	20050322	BR 2003-11697	20030603
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JP 2005145951	A2	20050609	JP 2004-249414	20040830
NO 2005000054	A	20050210	NO 2005-54	20050105
PRIORITY APPLN. INFO.:				
JP 2002-166069 A 20020606				
JP 2002-209373 A 20020718				
JP 2002-307750 A 20021023				
JP 2004-511299 A3 20030603				
WO 2003-JP7010 W 20030603				

OTHER SOURCE(S): MARPAT 140:42192

GI



AB The title compds. I [wherein T1 is an optionally substituted, monocyclic or bicyclic, 4- to 12-membered, heterocyclic group containing one or two

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<12/21/2005>

L4 ANSWER 11 OF 26 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
 nitrogen atom in the ring; X is optionally substituted C1-6 alkyl, etc.;
 Z1 and Z2 each independently is hydrogen, CR2; and R1 and R2 each
 independently is hydrogen, optionally substituted C1-6 alkyl, optionally
 substituted C1-6 alkoxy, etc.] are prep. Comps. of this invention in
 vitro showed IC50 values of 0.001 μ M to 1.48 μ M against
 dipeptidylpeptidase IV.

IT 635717-65-6P 635717-66-7P 635717-68-9P

635717-76-9P 635717-79-2P 635720-48-8P

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635720-56-8P 635720-59-0P 635720-60-4P

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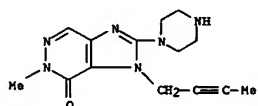
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RN 635717-66-7 CAPLUS
 CN 4H-imidazo[4,5-d]pyridazin-4-one, 3-(2-butynyl)-3,5-dihydro-5-methyl-2-(1-piperazinyl)-, mono(trifluoroacetate) (9CI) (CA INDEX NAME)

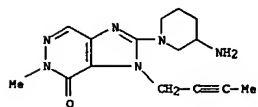
L4 ANSWER 11 OF 26 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
 CRN 76-05-1
 CMF C2 H F3 O2



RN 635717-76-9 CAPLUS
 CN 4H-imidazo[4,5-d]pyridazin-4-one, 2-(3-amino-1-piperidinyl)-3-(2-butynyl)-3,5-dihydro-5-methyl-, mono(trifluoroacetate) (9CI) (CA INDEX NAME)

CM 1

CRN 635717-75-8
 CMF C15 H20 N6 O



CM 2

CRN 76-05-1
 CMF C2 H F3 O2



RN 635717-79-2 CAPLUS
 CN 4H-imidazo[4,5-d]pyridazin-4-one, 2-(3-amino-1-piperidinyl)-3,5-dihydro-5-methyl-3-[3-methyl-2-butynyl]-, mono(trifluoroacetate) (9CI) (CA INDEX NAME)

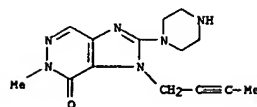
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CRN 635717-78-1
 CMF C16 H24 N6 O

L4 ANSWER 11 OF 26 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

CM 1

CRN 635717-65-6
 CMF C14 H18 N6 O



CM 2

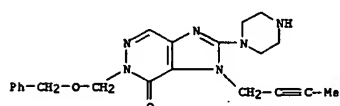
CRN 76-05-1
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RN 635717-68-9 CAPLUS
 CN 4H-imidazo[4,5-d]pyridazin-4-one, 3-(2-butynyl)-3,5-dihydro-5-[(phenylmethoxy)methyl]-2-(1-piperazinyl)-, mono(trifluoroacetate) (9CI) (CA INDEX NAME)

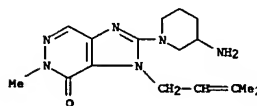
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CM 2

L4 ANSWER 11 OF 26 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



CM 2

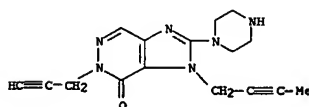
CRN 76-05-1
 CMF C2 H F3 O2



RN 635720-48-8 CAPLUS
 CN 4H-imidazo[4,5-d]pyridazin-4-one, 3-(2-butynyl)-3,5-dihydro-2-(1-piperazinyl)-5-(2-propynyl)-, mono(trifluoroacetate) (9CI) (CA INDEX NAME)

CM 1

CRN 635720-47-7
 CMF C16 H18 N6 O



CM 2

CRN 76-05-1
 CMF C2 H F3 O2



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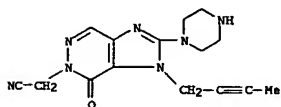
<12/21/2005>

L4 ANSWER 11 OF 26 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

RN 635720-50-2 CAPLUS

CN 5H-Imidazo[4,5-d]pyridazine-5-acetonitrile, 3-(2-butynyl)-3,4-dihydro-4-oxo-2-(1-piperazinyl)-, mono(trifluoroacetate) (9CI) (CA INDEX NAME)

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CRN 635720-49-9
CHF C15 H17 N7 O

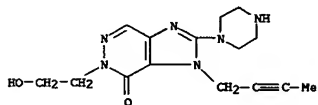
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CRN 76-05-1
CHF C2 H F3 O2

RN 635720-52-4 CAPLUS

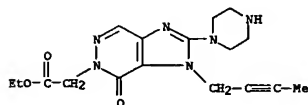
CN 4H-Imidazo[4,5-d]pyridazin-4-one, 3-(2-butynyl)-3,5-dihydro-5-(2-hydroxyethyl)-2-(1-piperazinyl)-, mono(trifluoroacetate) (salt) (9CI) (CA INDEX NAME)

CH 1

CRN 635720-51-3
CHF C15 H20 N6 O2

L4 ANSWER 11 OF 26 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

CH 1

CRN 635720-55-7
CHF C17 H22 N6 O3

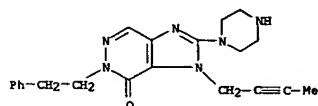
CH 2

CRN 76-05-1
CHF C2 H F3 O2

RN 635720-58-0 CAPLUS

CN 4H-Imidazo[4,5-d]pyridazin-4-one, 3-(2-butynyl)-3,5-dihydro-5-(2-phenylethyl)-2-(1-piperazinyl)-, mono(trifluoroacetate) (9CI) (CA INDEX NAME)

CH 1

CRN 635720-57-9
CHF C21 H24 N6 O

CH 2

CRN 76-05-1
CHF C2 H F3 O2

<12/21/2005>

L4 ANSWER 11 OF 26 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

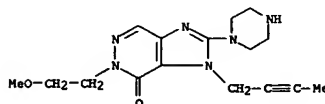
CH 2

CRN 76-05-1
CHF C2 H F3 O2

RN 635720-54-6 CAPLUS

CN 4H-Imidazo[4,5-d]pyridazin-4-one, 3-(2-butynyl)-3,5-dihydro-5-(2-methoxyethyl)-2-(1-piperazinyl)-, mono(trifluoroacetate) (9CI) (CA INDEX NAME)

CH 1

CRN 635720-53-5
CHF C16 H22 N6 O2

CH 2

CRN 76-05-1
CHF C2 H F3 O2

RN 635720-56-8 CAPLUS

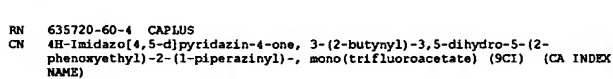
CN 5H-Imidazo[4,5-d]pyridazine-5-acetic acid, 3-(2-butynyl)-3,4-dihydro-4-oxo-2-(1-piperazinyl)-, ethyl ester, mono(trifluoroacetate) (9CI) (CA INDEX NAME)

CH 1

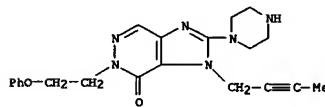
CRN 635720-55-7
CHF C17 H22 N6 O3

L4 ANSWER 11 OF 26 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

CH 1

CRN 635720-59-1
CHF C21 H24 N6 O2

CH 1

CRN 635720-59-1
CHF C21 H24 N6 O2

CH 2

CRN 76-05-1
CHF C2 H F3 O2

RN 635720-62-6 CAPLUS

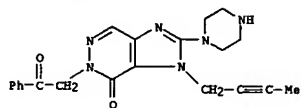
CN 4H-Imidazo[4,5-d]pyridazin-4-one, 3-(2-butynyl)-3,5-dihydro-5-(2-oxo-2-phenylethyl)-2-(1-piperazinyl)-, mono(trifluoroacetate) (9CI) (CA INDEX NAME)

CH 1

CRN 635720-61-5
CHF C21 H22 N6 O2

Habte

L4 ANSWER 11 OF 26 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

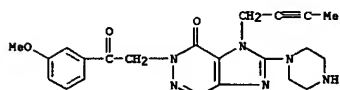


CM 2

CRN 76-05-1
CMF C2 H F3 O2

RN 635720-64-8 CAPLUS
CN 4H-imidazo[4,5-d]pyridazin-4-one, 3-(2-butynyl)-3,5-dihydro-5-[2-(3-methoxyphenyl)-2-oxoethyl]-2-(1-piperazinyl)-, mono(trifluoroacetate) (9CI) (CA INDEX NAME)

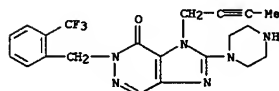
CM 1

CRN 635720-63-7
CMF C22 H24 N6 O3

CM 2

CRN 76-05-1
CMF C2 H F3 O2

L4 ANSWER 11 OF 26 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

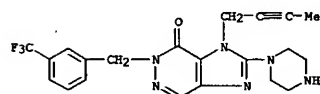


CM 2

CRN 76-05-1
CMF C2 H F3 O2

RN 635720-70-6 CAPLUS
CN 4H-imidazo[4,5-d]pyridazin-4-one, 3-(2-butynyl)-3,5-dihydro-2-(1-piperazinyl)-5-[3-(trifluoromethyl)phenylmethyl]-, mono(trifluoroacetate) (9CI) (CA INDEX NAME)

CM 1

CRN 635720-69-3
CMF C21 H21 F3 N6 O

CM 2

CRN 76-05-1
CMF C2 H F3 O2

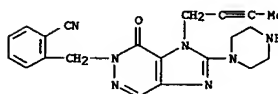
RN 635720-72-8 CAPLUS
<12/21/2005>

L4 ANSWER 11 OF 26 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



RN 635720-66-0 CAPLUS
CN Benzonitrile, 2-[[3-(2-butynyl)-3,4-dihydro-4-oxo-2-(1-piperazinyl)-5H-imidazo[4,5-d]pyridazin-5-yl]methyl]-, mono(trifluoroacetate) (9CI) (CA INDEX NAME)

CM 1

CRN 635720-65-9
CMF C21 H21 N7 O

CM 2

CRN 76-05-1
CMF C2 H F3 O2

RN 635720-68-2 CAPLUS
CN 4H-imidazo[4,5-d]pyridazin-4-one, 3-(2-butynyl)-3,5-dihydro-2-(1-piperazinyl)-5-[[2-(trifluoromethyl)phenyl]methyl]-, mono(trifluoroacetate) (9CI) (CA INDEX NAME)

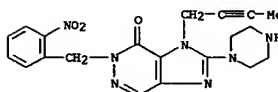
CM 1

CRN 635720-67-1
CMF C21 H21 F3 N6 O

L4 ANSWER 11 OF 26 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

CN 4H-imidazo[4,5-d]pyridazin-4-one, 3-(2-butynyl)-3,5-dihydro-5-[[2-(nitrophenyl)methyl]-2-(1-piperazinyl)-, mono(trifluoroacetate) (9CI) (CA INDEX NAME)

CM 1

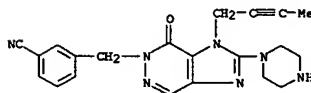
CRN 635720-71-7
CMF C20 H21 N7 O3

CM 2

CRN 76-05-1
CMF C2 H F3 O2

RN 635720-74-0 CAPLUS
CN Benzonitrile, 3-[[3-(2-butynyl)-3,4-dihydro-4-oxo-2-(1-piperazinyl)-5H-imidazo[4,5-d]pyridazin-5-yl]methyl]-, mono(trifluoroacetate) (9CI) (CA INDEX NAME)

CM 1

CRN 635720-73-9
CMF C21 H21 N7 O

CM 2

CRN 76-05-1
CMF C2 H F3 O2

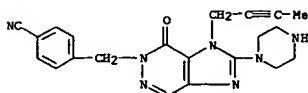
Habte

L4 ANSWER 11 OF 26 CAPLUS COPYRIGHT 2005 ACS ON STN (Continued)



RN 635720-76-2 CAPLUS
 CN Benzonitrile, 4-[[3-(2-butynyl)-3,4-dihydro-4-oxo-2-(1-piperazinyl)-5H-imidazo[4,5-d]pyridazin-5-yl]methyl]-, mono(trifluoroacetate) (9CI) (CA INDEX NAME)

CH 1
 CRN 635720-75-1
 CHF C21 H21 N7 O



CH 2
 CRN 76-05-1
 CHF C2 H F3 O2



RN 635720-78-4 CAPLUS
 CN Benzoic acid, 3-[[3-(2-butynyl)-3,4-dihydro-4-oxo-2-(1-piperazinyl)-5H-imidazo[4,5-d]pyridazin-5-yl]methyl]-, methyl ester, mono(trifluoroacetate) (9CI) (CA INDEX NAME)

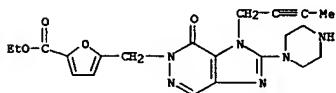
CH 1
 CRN 635720-77-3
 CHF C22 H24 N6 O3

L4 ANSWER 11 OF 26 CAPLUS COPYRIGHT 2005 ACS ON STN (Continued)



RN 635720-82-0 CAPLUS
 CN 2-Furancarboxylic acid, 5-[[3-(2-butynyl)-3,4-dihydro-4-oxo-2-(1-piperazinyl)-5H-imidazo[4,5-d]pyridazin-5-yl]methyl]-, ethyl ester, mono(trifluoroacetate) (9CI) (CA INDEX NAME)

CH 1
 CRN 635720-81-9
 CHF C21 H24 N6 O4



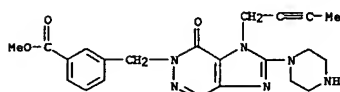
CH 2
 CRN 76-05-1
 CHF C2 H F3 O2



RN 635720-84-2 CAPLUS
 CN 4H-imidazo[4,5-d]pyridazin-4-one, 3-(2-butynyl)-3,5-dihydro-5-[2-(2-nitrophenyl)-2-oxoethyl]-2-(1-piperazinyl)-, mono(trifluoroacetate) (9CI) (CA INDEX NAME)

CH 1
 CRN 635720-83-1
 CHF C21 H21 N7 O4

L4 ANSWER 11 OF 26 CAPLUS COPYRIGHT 2005 ACS ON STN (Continued)

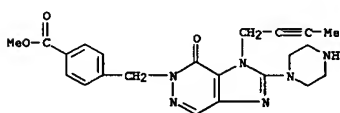


CH 2
 CRN 76-05-1
 CHF C2 H F3 O2



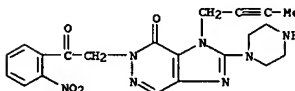
RN 635720-80-8 CAPLUS
 CN Benzoic acid, 4-[[3-(2-butynyl)-3,4-dihydro-4-oxo-2-(1-piperazinyl)-5H-imidazo[4,5-d]pyridazin-5-yl]methyl]-, methyl ester, mono(trifluoroacetate) (9CI) (CA INDEX NAME)

CH 1
 CRN 635720-79-5
 CHF C22 H24 N6 O3



CH 2
 CRN 76-05-1
 CHF C2 H F3 O2

L4 ANSWER 11 OF 26 CAPLUS COPYRIGHT 2005 ACS ON STN (Continued)

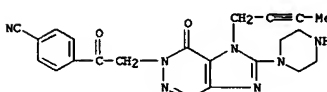


CH 2
 CRN 76-05-1
 CHF C2 H F3 O2



RN 635720-86-4 CAPLUS
 CN Benzonitrile, 4-[[3-(2-butynyl)-3,4-dihydro-4-oxo-2-(1-piperazinyl)-5H-imidazo[4,5-d]pyridazin-5-yl]acetyl]-, mono(trifluoroacetate) (9CI) (CA INDEX NAME)

CH 1
 CRN 635720-85-3
 CHF C22 H21 N7 O2



CH 2
 CRN 76-05-1
 CHF C2 H F3 O2



RN 635720-88-6 CAPLUS

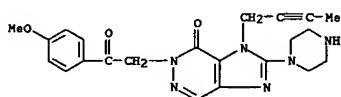
Habte

<12/21/2005>

L4 ANSWER 11 OF 26 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
 CN 4H-Imidazo[4,5-d]pyridazin-4-one, 3-(2-butynyl)-3,5-dihydro-5-[2-(4-methoxyphenyl)-2-oxoethyl]-2-(1-piperazinyl)-, mono(trifluoroacetate) (9CI) (CA INDEX NAME)

CH 1

CRN 635720-87-5
 CMF C22 H24 N6 O3



CH 2

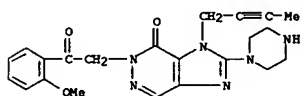
CRN 76-05-1
 CMF C2 H F3 O2



RN 635720-90-0 CAPLUS
 CN 4H-Imidazo[4,5-d]pyridazin-4-one, 3-(2-butynyl)-3,5-dihydro-5-[2-(2-methoxyphenyl)-2-oxoethyl]-2-(1-piperazinyl)-, mono(trifluoroacetate) (9CI) (CA INDEX NAME)

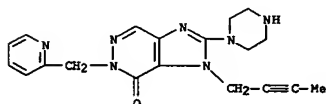
CH 1

CRN 635720-89-7
 CMF C22 H24 N6 O3



CH 2

L4 ANSWER 11 OF 26 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



CH 2

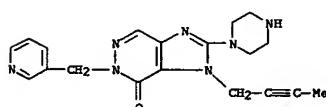
CRN 76-05-1
 CMF C2 H F3 O2



RN 635720-96-6 CAPLUS
 CN 4H-Imidazo[4,5-d]pyridazin-4-one, 3-(2-butynyl)-3,5-dihydro-2-(1-piperazinyl)-5-(3-pyridinylmethyl)-, bis(trifluoroacetate) (9CI) (CA INDEX NAME)

CH 1

CRN 635720-95-5
 CMF C19 H21 N7 O



CH 2

CRN 76-05-1
 CMF C2 H F3 O2

L4 ANSWER 11 OF 26 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

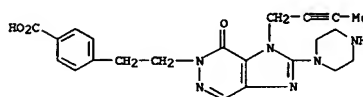
CRN 76-05-1
 CMF C2 H F3 O2



RN 635720-92-2 CAPLUS
 CN Benzoic acid, 4-[2-[3-(2-butynyl)-3,4-dihydro-4-oxo-2-(1-piperazinyl)-5H-imidazo[4,5-d]pyridazin-5-yl]ethyl]-, mono(trifluoroacetate) (9CI) (CA INDEX NAME)

CH 1

CRN 635720-91-1
 CMF C22 H24 N6 O3



CH 2

CRN 76-05-1
 CMF C2 H F3 O2



RN 635720-94-4 CAPLUS
 CN 4H-Imidazo[4,5-d]pyridazin-4-one, 3-(2-butynyl)-3,5-dihydro-2-(1-piperazinyl)-5-(2-pyridinylmethyl)-, bis(trifluoroacetate) (9CI) (CA INDEX NAME)

CH 1

CRN 635720-93-3
 CMF C19 H21 N7 O

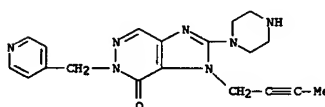
L4 ANSWER 11 OF 26 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



RN 635720-98-8 CAPLUS
 CN 4H-Imidazo[4,5-d]pyridazin-4-one, 3-(2-butynyl)-3,5-dihydro-2-(1-piperazinyl)-5-(4-pyridinylmethyl)-, bis(trifluoroacetate) (9CI) (CA INDEX NAME)

CH 1

CRN 635720-97-7
 CMF C19 H21 N7 O



CH 2

CRN 76-05-1
 CMF C2 H F3 O2



RN 635721-00-5 CAPLUS
 CN 4H-Imidazo[4,5-d]pyridazin-4-one, 3-(2-butynyl)-3,5-dihydro-5-[2-oxo-2-(2-pyridinyl)ethyl]-2-(1-piperazinyl)-, bis(trifluoroacetate) (9CI) (CA INDEX NAME)

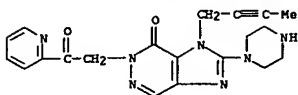
CH 1

CRN 635720-99-9
 CMF C20 H21 N7 O2

<12/21/2005>

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L4 ANSWER 11 OF 26 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



CM 2

CRN 76-05-1

CMF C2 H F3 O2

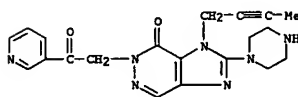


RN 635721-02-7 CAPLUS
CN 4H-imidazo[4,5-d]pyridazin-4-one, 3-(2-butynyl)-3,5-dihydro-5-[2-oxo-2-(3-pyridinyl)ethyl]-2-(1-piperazinyl)-, bis(trifluoroacetate) (9CI) (CA INDEX NAME)

CM 1

CRN 635721-01-6

CMF C20 H21 N7 O2

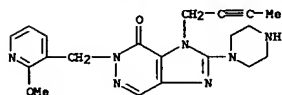


CM 2

CRN 76-05-1

CMF C2 H F3 O2

L4 ANSWER 11 OF 26 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



CM 2

CRN 76-05-1

CMF C2 H F3 O2

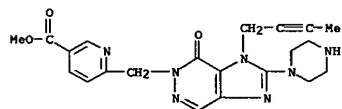


RN 635721-08-3 CAPLUS
CN 3-Pyridinecarboxylic acid, 6-[[3-(2-butynyl)-3,4-dihydro-4-oxo-2-(1-piperazinyl)-5H-imidazo[4,5-d]pyridazin-5-yl]methyl]-, methyl ester, bis(trifluoroacetate) (9CI) (CA INDEX NAME)

CM 1

CRN 635721-07-2

CMF C21 H23 N7 O3



CM 2

CRN 76-05-1

CMF C2 H F3 O2



<12/21/2005>

L4 ANSWER 11 OF 26 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

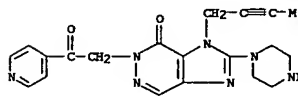


RN 635721-04-9 CAPLUS
CN 4H-imidazo[4,5-d]pyridazin-4-one, 3-(2-butynyl)-3,5-dihydro-5-[2-oxo-2-(4-pyridinyl)ethyl]-2-(1-piperazinyl)-, bis(trifluoroacetate) (9CI) (CA INDEX NAME)

CM 1

CRN 635721-03-8

CMF C20 H21 N7 O2



CM 2

CRN 76-05-1

CMF C2 H F3 O2



RN 635721-06-1 CAPLUS
CN 4H-imidazo[4,5-d]pyridazin-4-one, 3-(2-butynyl)-3,5-dihydro-5-[[2-methoxy-3-pyridinyl)methyl]-2-(1-piperazinyl)-, mono(trifluoroacetate) (9CI) (CA INDEX NAME)

CM 1

CRN 635721-05-0

CMF C20 H23 N7 O2

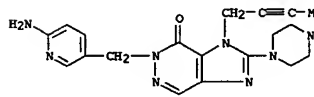
L4 ANSWER 11 OF 26 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

RN 635721-10-7 CAPLUS
CN 4H-imidazo[4,5-d]pyridazin-4-one, 5-[(6-amino-3-pyridinyl)methyl]-3-(2-butynyl)-3,5-dihydro-2-(1-piperazinyl)-, mono(trifluoroacetate) (9CI) (CA INDEX NAME)

CM 1

CRN 635721-09-4

CMF C19 H22 N8 O



CM 2

CRN 76-05-1

CMF C2 H F3 O2

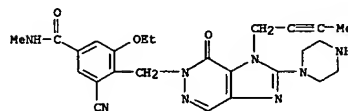


RN 635721-12-9 CAPLUS
CN Benzamide, 4-[[3-(2-butynyl)-3,4-dihydro-4-oxo-2-(1-piperazinyl)-5H-imidazo[4,5-d]pyridazin-5-yl]methyl]-3-cyano-5-ethoxy-N-methyl-, mono(trifluoroacetate) (9CI) (CA INDEX NAME)

CM 1

CRN 635721-11-8

CMF C25 H28 N8 O3



CM 2

CRN 76-05-1

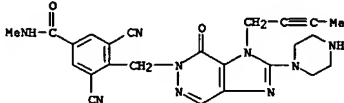
Habte

L4 ANSWER 11 OF 26 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
CMF C2 H F3 O2

RN 635721-14-1 CAPLUS
CN Benzamide, 4-[[[3-(2-butynyl)-3,4-dihydro-4-oxo-2-(1-piperazinyl)-5H-imidazo[4,5-d]pyridazin-5-yl]methyl]-3,5-dicyano-N-methyl-, mono(trifluoroacetate) (9CI) (CA INDEX NAME)

CM 1

CRN 635721-13-0
CMF C24 H23 N9 O2



CM 2

CRN 76-05-1
CMF C2 H F3 O2



RN 635721-16-3 CAPLUS
CN Benzamide, 4-[[[3-(2-butynyl)-3,4-dihydro-4-oxo-2-(1-piperazinyl)-5H-imidazo[4,5-d]pyridazin-5-yl]methyl]-3-cyano-5-fluoro-N-methyl-, mono(trifluoroacetate) (9CI) (CA INDEX NAME)

CM 1

CRN 635721-15-2
CMF C23 H23 F N8 O2

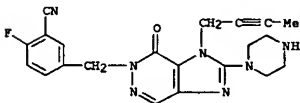
L4 ANSWER 11 OF 26 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



RN 635721-21-0 CAPLUS
CN Benzonitrile, 5-[[[3-(2-butynyl)-3,4-dihydro-4-oxo-2-(1-piperazinyl)-5H-imidazo[4,5-d]pyridazin-5-yl]methyl]-2-fluoro-, mono(trifluoroacetate) (9CI) (CA INDEX NAME)

CM 1

CRN 635721-20-9
CMF C21 H20 F N7 O



CM 2

CRN 76-05-1
CMF C2 H F3 O2

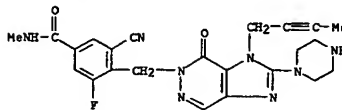


RN 635721-24-3 CAPLUS
CN Benzonitrile, 2-[[[3-(2-butynyl)-3,4-dihydro-4-oxo-2-(1-piperazinyl)-5H-imidazo[4,5-d]pyridazin-5-yl]methyl]-5-fluoro-, mono(trifluoroacetate) (9CI) (CA INDEX NAME)

CM 1

CRN 635721-23-2
CMF C21 H20 F N7 O

L4 ANSWER 11 OF 26 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



CM 2

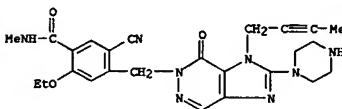
CRN 76-05-1
CMF C2 H F3 O2



RN 635721-18-5 CAPLUS
CN Benzamide, 4-[[[3-(2-butynyl)-3,4-dihydro-4-oxo-2-(1-piperazinyl)-5H-imidazo[4,5-d]pyridazin-5-yl]methyl]-5-cyano-2-ethoxy-N-methyl-, mono(trifluoroacetate) (9CI) (CA INDEX NAME)

CM 1

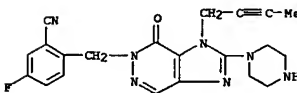
CRN 635721-17-4
CMF C25 H28 N8 O3



CM 2

CRN 76-05-1
CMF C2 H F3 O2

L4 ANSWER 11 OF 26 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



CM 2

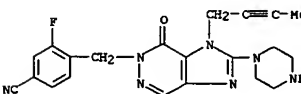
CRN 76-05-1
CMF C2 H F3 O2



RN 635721-27-6 CAPLUS
CN Benzonitrile, 4-[[[3-(2-butynyl)-3,4-dihydro-4-oxo-2-(1-piperazinyl)-5H-imidazo[4,5-d]pyridazin-5-yl]methyl]-3-fluoro-, mono(trifluoroacetate) (9CI) (CA INDEX NAME)

CM 1

CRN 635721-26-5
CMF C21 H20 F N7 O



CM 2

CRN 76-05-1
CMF C2 H F3 O2



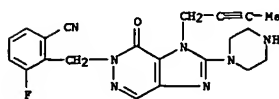
RN 635721-30-1 CAPLUS

Habe

L4 ANSWER 11 OF 26 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
 CN Benzonitrile, 2-[[3-(2-butynyl)-3,4-dihydro-4-oxo-2-(1-piperazinyl)-5H-imidazo[4,5-d]pyridazin-5-yl]methyl]-3-fluoro-, mono(trifluoroacetate) (9CI) (CA INDEX NAME)

CH 1

CRN 635721-29-8
 CMF C21 H20 F N7 O



CH 2

CRN 76-05-1
 CMF C2 H F3 O2



RN 635721-32-3 CAPLUS
 CN 4H-Imidazo[4,5-d]pyridazin-4-one, 3-(2-butynyl)-3,5-dihydro-5-[(1-isoquinolinylmethyl)-2-(1-piperazinyl)-, mono(trifluoroacetate) (9CI) (CA INDEX NAME)

CH 1

CRN 635721-31-2
 CMF C23 H23 N7 O

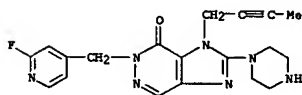
L4 ANSWER 11 OF 26 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



RN 635721-36-7 CAPLUS
 CN 4H-Imidazo[4,5-d]pyridazin-4-one, 3-(2-butynyl)-5-[(2-fluoro-4-pyridinyl)methyl]-3,5-dihydro-2-(1-piperazinyl)-, mono(trifluoroacetate) (9CI) (CA INDEX NAME)

CH 1

CRN 635721-35-6
 CMF C19 H20 F N7 O



CH 2

CRN 76-05-1
 CMF C2 H F3 O2

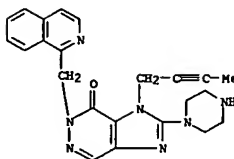


RN 635721-38-9 CAPLUS
 CN 4H-Imidazo[4,5-d]pyridazin-4-one, 3-(2-butynyl)-5-[(6-fluoro-2-pyridinyl)methyl]-3,5-dihydro-2-(1-piperazinyl)-, mono(trifluoroacetate) (9CI) (CA INDEX NAME)

CH 1

CRN 635721-37-8
 CMF C19 H20 F N7 O

L4 ANSWER 11 OF 26 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



CH 2

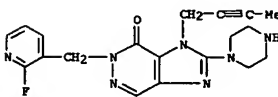
CRN 76-05-1
 CMF C2 H F3 O2



RN 635721-34-5 CAPLUS
 CN 4H-Imidazo[4,5-d]pyridazin-4-one, 3-(2-butynyl)-5-[(2-fluoro-3-pyridinyl)methyl]-3,5-dihydro-2-(1-piperazinyl)-, mono(trifluoroacetate) (9CI) (CA INDEX NAME)

CH 1

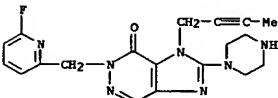
CRN 635721-33-4
 CMF C19 H20 F N7 O



CH 2

CRN 76-05-1
 CMF C2 H F3 O2

L4 ANSWER 11 OF 26 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



CH 2

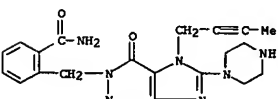
CRN 76-05-1
 CMF C2 H F3 O2



RN 635721-41-4 CAPLUS
 CN Benzamide, 2-[[[3-(2-butynyl)-3,4-dihydro-4-oxo-2-(1-piperazinyl)-5H-imidazo[4,5-d]pyridazin-5-yl]methyl]-, mono(trifluoroacetate) (9CI) (CA INDEX NAME)

CH 1

CRN 635721-40-3
 CMF C21 H23 N7 O2



CH 2

CRN 76-05-1
 CMF C2 H F3 O2



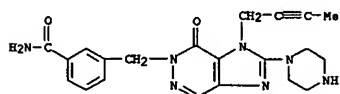
<12/21/2005>

Habte

L4 ANSWER 11 OF 26 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
 RN 635721-44-7 CAPLUS
 CN Benzamide, 3-[[3-(2-butynyl)-3,4-dihydro-4-oxo-2-(1-piperazinyl)-5H-imidazo[4,5-d]pyridazin-5-yl]methyl]-, mono(trifluoroacetate) (9CI) (CA INDEX NAME)

CM 1

CRN 635721-43-6
 CMF C21 H23 N7 O2



CM 2

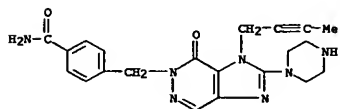
CRN 76-05-1
 CMF C2 H F3 O2



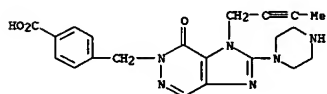
RN 635721-46-9 CAPLUS
 CN Benzamide, 4-[[3-(2-butynyl)-3,4-dihydro-4-oxo-2-(1-piperazinyl)-5H-imidazo[4,5-d]pyridazin-5-yl]methyl]-, mono(trifluoroacetate) (9CI) (CA INDEX NAME)

CM 1

CRN 635721-45-8
 CMF C21 H23 N7 O2



L4 ANSWER 11 OF 26 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
 RN 635721-49-2
 CMF C21 H22 N6 O3



CM 2

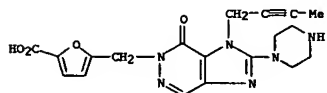
CRN 76-05-1
 CMF C2 H F3 O2



RN 635721-52-7 CAPLUS
 CN 2-Furancarboxylic acid, 5-[[3-(2-butynyl)-3,4-dihydro-4-oxo-2-(1-piperazinyl)-5H-imidazo[4,5-d]pyridazin-5-yl]methyl]-, mono(trifluoroacetate) (9CI) (CA INDEX NAME)

CM 1

CRN 635721-51-6
 CMF C19 H20 N6 O4



CM 2

CRN 76-05-1
 CMF C2 H F3 O2

L4 ANSWER 11 OF 26 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

CM 2

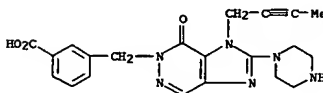
CRN 76-05-1
 CMF C2 H F3 O2



RN 635721-48-1 CAPLUS
 CN Benzoic acid, 3-[[3-(2-butynyl)-3,4-dihydro-4-oxo-2-(1-piperazinyl)-5H-imidazo[4,5-d]pyridazin-5-yl]methyl]-, mono(trifluoroacetate) (9CI) (CA INDEX NAME)

CM 1

CRN 635721-47-0
 CMF C21 H22 N6 O3



CM 2

CRN 76-05-1
 CMF C2 H F3 O2



RN 635721-50-5 CAPLUS
 CN Benzoic acid, 4-[[3-(2-butynyl)-3,4-dihydro-4-oxo-2-(1-piperazinyl)-5H-imidazo[4,5-d]pyridazin-5-yl]methyl]-, mono(trifluoroacetate) (9CI) (CA INDEX NAME)

CM 1

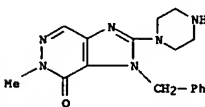
L4 ANSWER 11 OF 26 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



RN 635721-56-1 CAPLUS
 CN 4H-Imidazo[4,5-d]pyridazin-4-one, 3,5-dihydro-5-methyl-3-(phenylmethyl)-2-(1-piperazinyl)-, mono(trifluoroacetate) (9CI) (CA INDEX NAME)

CM 1

CRN 635721-55-0
 CMF C17 H20 N6 O



CM 2

CRN 76-05-1
 CMF C2 H F3 O2

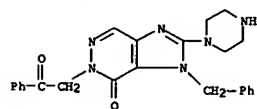


RN 635721-58-3 CAPLUS
 CN 4H-Imidazo[4,5-d]pyridazin-4-one, 3,5-dihydro-5-(2-oxo-2-phenylethyl)-3-(phenylmethyl)-2-(1-piperazinyl)-, mono(trifluoroacetate) (9CI) (CA INDEX NAME)

CM 1

CRN 635721-57-2
 CMF C24 H24 N6 O2

L4 ANSWER 11 OF 26 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

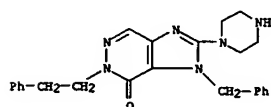


CM 2
CRN 76-05-1
CMF C2 H F3 O2



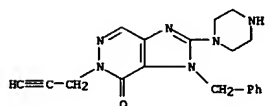
RN 635721-60-7 CAPLUS
CN 4H-imidazo[4,5-d]pyridazin-4-one, 3,5-dihydro-5-(2-phenylethyl)-3-(phenylmethyl)-2-(1-piperazinyl)-, mono(trifluoroacetate) (9CI) (CA INDEX NAME)

CM 1
CRN 635721-59-4
CMF C24 H26 N6 O



CM 2
CRN 76-05-1
CMF C2 H F3 O2

L4 ANSWER 11 OF 26 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

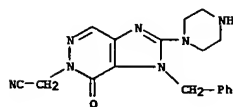


CM 2
CRN 76-05-1
CMF C2 H F3 O2



RN 635721-66-3 CAPLUS
CN 5H-imidazo[4,5-d]pyridazine-5-acetonitrile, 3,4-dihydro-4-oxo-3-(phenylmethyl)-2-(1-piperazinyl)-, mono(trifluoroacetate) (9CI) (CA INDEX NAME)

CM 1
CRN 635721-65-2
CMF C18 H19 N7 O



CM 2
CRN 76-05-1
CMF C2 H F3 O2



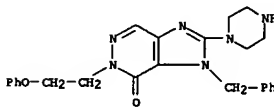
<12/21/2005>

L4 ANSWER 11 OF 26 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



RN 635721-62-9 CAPLUS
CN 4H-imidazo[4,5-d]pyridazin-4-one, 3,5-dihydro-5-(2-phenylethyl)-3-(phenylmethyl)-2-(1-piperazinyl)-, mono(trifluoroacetate) (9CI) (CA INDEX NAME)

CM 1
CRN 635721-61-8
CMF C24 H26 N6 O2



CM 2
CRN 76-05-1
CMF C2 H F3 O2



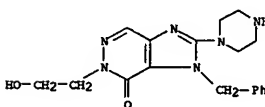
RN 635721-64-1 CAPLUS
CN 4H-imidazo[4,5-d]pyridazin-4-one, 3,5-dihydro-3-(phenylmethyl)-2-(1-piperazinyl)-5-(2-propynyl)-, mono(trifluoroacetate) (9CI) (CA INDEX NAME)

CM 1
CRN 635721-63-0
CMF C19 H20 N6 O

L4 ANSWER 11 OF 26 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

RN 635721-68-5 CAPLUS
CN 4H-imidazo[4,5-d]pyridazin-4-one, 3,5-dihydro-5-(2-hydroxyethyl)-3-(phenylmethyl)-2-(1-piperazinyl)-, mono(trifluoroacetate) (salt) (9CI) (CA INDEX NAME)

CM 1
CRN 635721-67-4
CMF C18 H22 N6 O2

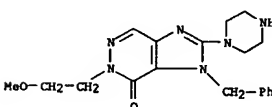


CM 2
CRN 76-05-1
CMF C2 H F3 O2



RN 635721-70-9 CAPLUS
CN 4H-imidazo[4,5-d]pyridazin-4-one, 3,5-dihydro-5-(2-methoxyethyl)-3-(phenylmethyl)-2-(1-piperazinyl)-, mono(trifluoroacetate) (9CI) (CA INDEX NAME)

CM 1
CRN 635721-69-6
CMF C19 H24 N6 O2



CM 2
Hatte

L4 ANSWER 11 OF 26 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

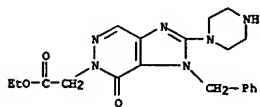
CRN 76-05-1
 CMF C2 H F3 O2



RN 635721-72-1 CAPLUS
 CN 5H-imidazo[4,5-d]pyridazine-5-acetic acid, 3,4-dihydro-4-oxo-3-(phenylmethyl)-2-(1-piperazinyl)-, ethyl ester, mono(trifluoroacetate) (9CI) (CA INDEX NAME)

CM 1

CRN 635721-71-0
 CMF C20 H24 N6 O3



CM 2

CRN 76-05-1
 CMF C2 H F3 O2



RN 635721-74-3 CAPLUS
 CN 4H-imidazo[4,5-d]pyridazin-4-one, 3,5-dihydro-5-[2-(3-methoxyphenyl)-2-oxoethyl]-3-(phenylmethyl)-2-(1-piperazinyl)-, mono(trifluoroacetate) (9CI) (CA INDEX NAME)

CM 1

CRN 635721-73-2

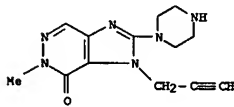
L4 ANSWER 11 OF 26 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



RN 635721-78-7 CAPLUS
 CN 4H-imidazo[4,5-d]pyridazin-4-one, 3,5-dihydro-5-methyl-2-(1-piperazinyl)-3-(2-propynyl)-, mono(trifluoroacetate) (9CI) (CA INDEX NAME)

CM 1

CRN 635721-77-6
 CMF C13 H16 N6 O



CM 2

CRN 76-05-1
 CMF C2 H F3 O2



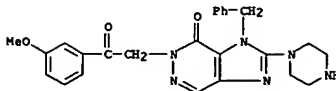
RN 635721-80-1 CAPLUS
 CN 4H-imidazo[4,5-d]pyridazin-4-one, 3-(2-butenyl)-3,5-dihydro-5-methyl-2-(1-piperazinyl)-, mono(trifluoroacetate) (9CI) (CA INDEX NAME)

CM 1

CRN 635721-79-8
 CMF C14 H20 N6 O

L4 ANSWER 11 OF 26 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

CMF C25 H26 N6 O3



CM 2

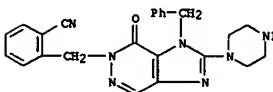
CRN 76-05-1
 CMF C2 H F3 O2



RN 635721-76-5 CAPLUS
 CN Benzonitrile, 2-[[3,4-dihydro-4-oxo-3-(phenylmethyl)-2-(1-piperazinyl)-5H-imidazo[4,5-d]pyridazin-5-yl]methyl]-, mono(trifluoroacetate) (9CI) (CA INDEX NAME)

CM 1

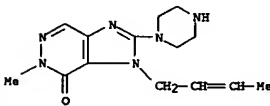
CRN 635721-75-4
 CMF C24 H23 N7 O



CM 2

CRN 76-05-1
 CMF C2 H F3 O2

L4 ANSWER 11 OF 26 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



CM 2

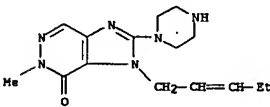
CRN 76-05-1
 CMF C2 H F3 O2



RN 635721-82-3 CAPLUS
 CN 4H-imidazo[4,5-d]pyridazin-4-one, 3,5-dihydro-5-methyl-3-(2-pentenyl)-2-(1-piperazinyl)-, mono(trifluoroacetate) (9CI) (CA INDEX NAME)

CM 1

CRN 635721-81-2
 CMF C15 H22 N6 O



CM 2

CRN 76-05-1
 CMF C2 H F3 O2



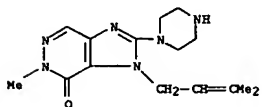
<12/21/2005>

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L4 ANSWER 11 OF 26 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
 RN 635721-84-5 CAPLUS
 CN 4H-Imidazo[4,5-d]pyridazin-4-one, 3,5-dihydro-5-methyl-3-(3-methyl-2-butynyl)-2-(1-piperazinyl)-, mono(trifluoroacetate) (9CI) (CA INDEX NAME)

CH 1

CRN 635721-83-4
 CMF C15 H22 N6 O



CH 2

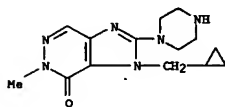
CRN 76-05-1
 CMF C2 H F3 O2



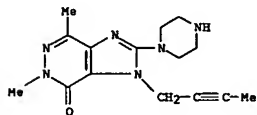
RN 635721-86-7 CAPLUS
 CN 4H-Imidazo[4,5-d]pyridazin-4-one, 3-(cyclopropylmethyl)-3,5-dihydro-5-methyl-2-(1-piperazinyl)-, mono(trifluoroacetate) (9CI) (CA INDEX NAME)

CH 1

CRN 635721-85-6
 CMF C14 H20 N6 O



L4 ANSWER 11 OF 26 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



CH 2

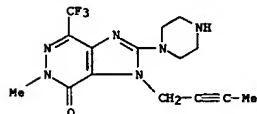
CRN 76-05-1
 CMF C2 H F3 O2



RN 635722-00-8 CAPLUS
 CN 4H-Imidazo[4,5-d]pyridazin-4-one, 3-(2-butynyl)-3,5-dihydro-5-methyl-2-(1-piperazinyl)-7-(trifluoromethyl)-, mono(trifluoroacetate) (9CI) (CA INDEX NAME)

CH 1

CRN 635721-99-2
 CMF C15 H17 F3 N6 O



CH 2

CRN 76-05-1
 CMF C2 H F3 O2

L4 ANSWER 11 OF 26 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

CH 2

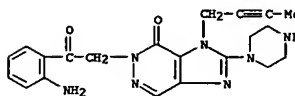
CRN 76-05-1
 CMF C2 H F3 O2



RN 635721-88-9 CAPLUS
 CN 4H-Imidazo[4,5-d]pyridazin-4-one, 5-[2-(2-aminophenyl)-2-oxoethyl]-3-(2-butynyl)-3,5-dihydro-2-(1-piperazinyl)-, bis(trifluoroacetate) (9CI) (CA INDEX NAME)

CH 1

CRN 635721-87-8
 CMF C21 H23 N7 O2



CH 2

CRN 76-05-1
 CMF C2 H F3 O2



RN 635721-90-3 CAPLUS
 CN 4H-Imidazo[4,5-d]pyridazin-4-one, 3-(2-butynyl)-3,5-dihydro-5,7-dimethyl-2-(1-piperazinyl)-, mono(trifluoroacetate) (9CI) (CA INDEX NAME)

CH 1

CRN 635721-89-0
 CMF C15 H20 N6 O

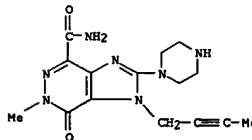
L4 ANSWER 11 OF 26 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



RN 635722-02-0 CAPLUS
 CN 1H-Imidazo[4,5-d]pyridazine-4-carboxamide, 1-(2-butynyl)-6,7-dihydro-6-methyl-7-oxo-2-(1-piperazinyl)-, mono(trifluoroacetate) (9CI) (CA INDEX NAME)

CH 1

CRN 635722-01-9
 CMF C15 H19 N7 O2



CH 2

CRN 76-05-1
 CMF C2 H F3 O2

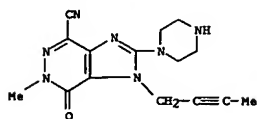


RN 635722-04-2 CAPLUS
 CN 1H-Imidazo[4,5-d]pyridazine-4-carbonitrile, 1-(2-butynyl)-6,7-dihydro-6-methyl-7-oxo-2-(1-piperazinyl)-, mono(trifluoroacetate) (9CI) (CA INDEX NAME)

CH 1

CRN 635722-03-1
 CMF C15 H17 N7 O

L4 ANSWER 11 OF 26 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

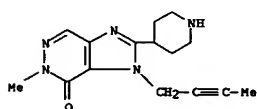


CH 2
CRN 76-05-1
CHF C2 H F3 O2



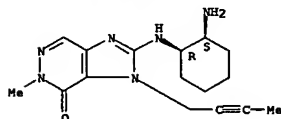
RN 635722-08-6 CAPLUS
CN 4H-imidazo[4,5-d]pyridazin-4-one, 3-(2-butynyl)-3,5-dihydro-5-methyl-2-(4-piperidinyl)-, mono(trifluoroacetate) (9CI) (CA INDEX NAME)

CH 1
CRN 635722-07-5
CHF C15 H19 N5 O



CH 2
CRN 76-05-1
CHF C2 H F3 O2

L4 ANSWER 11 OF 26 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
Absolute stereochemistry.

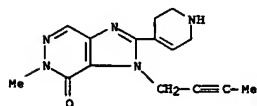


CH 2
CRN 76-05-1
CHF C2 H F3 O2



RN 635722-42-8 CAPLUS
CN 4H-imidazo[4,5-d]pyridazin-4-one, 3-(2-butynyl)-3,5-dihydro-5-methyl-2-(1,2,3,6-tetrahydro-4-pyridinyl)-, mono(trifluoroacetate) (9CI) (CA INDEX NAME)

CH 1
CRN 635722-41-7
CHF C15 H17 N5 O



CH 2
CRN 76-05-1
CHF C2 H F3 O2

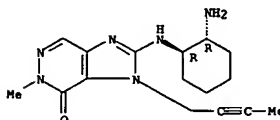
L4 ANSWER 11 OF 26 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



RN 635722-38-2 CAPLUS
CN 4H-imidazo[4,5-d]pyridazin-4-one, 2-[[[(1R,2R)-2-aminocyclohexyl]amino]-3-(2-butynyl)-3,5-dihydro-5-methyl-, mono(trifluoroacetate) (9CI) (CA INDEX NAME)

CH 1
CRN 635722-37-1
CHF C16 H22 N6 O

Absolute stereochemistry.



CH 2
CRN 76-05-1
CHF C2 H F3 O2



RN 635722-40-6 CAPLUS
CN 4H-imidazo[4,5-d]pyridazin-4-one, 2-[[[(1R,2S)-2-aminocyclohexyl]amino]-3-(2-butynyl)-3,5-dihydro-5-methyl-, mono(trifluoroacetate) (9CI) (CA INDEX NAME)

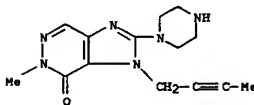
CH 1
CRN 635722-39-3
CHF C16 H22 N6 O

L4 ANSWER 11 OF 26 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

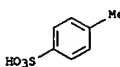


RN 635722-43-9 CAPLUS
CN 4H-imidazo[4,5-d]pyridazin-4-one, 3-(2-butynyl)-3,5-dihydro-5-methyl-2-(1-piperazinyl)-, mono(4-methylbenzenesulfonate) (9CI) (CA INDEX NAME)

CH 1
CRN 635717-65-6
CHF C14 H18 N6 O



CH 2
CRN 104-15-4
CHF C7 H9 O3 S

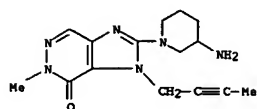


IT 635717-75-0 635720-65-9
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(preparation of purinone derivs. as dipeptidylpeptidase IV inhibitors)
RN 635717-75-0 CAPLUS
CN 4H-imidazo[4,5-d]pyridazin-4-one, 2-(3-amino-1-piperidinyl)-3-(2-butynyl)-3,5-dihydro-5-methyl- (9CI) (CA INDEX NAME)

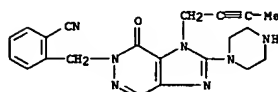
<12/21/2005>

Habte

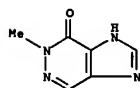
L4 ANSWER 11 OF 26 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



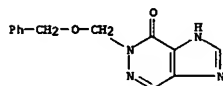
RN 635720-65-9 CAPLUS
 CN Benzonitrile, 2-[[3-(2-butynyl)-3,4-dihydro-4-oxo-2-(1-piperazinyl)-5H-imidazo[4,5-d]pyridazin-5-yl]methyl]- (9CI) (CA INDEX NAME)



IT 76756-58-6 82137-50-6
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (preparation of purinone derivs. as dipeptidylpeptidase IV inhibitors)
 RN 76756-58-6 CAPLUS
 CN 4H-imidazo[4,5-d]pyridazin-4-one, 1,5-dihydro-5-methyl- (9CI) (CA INDEX NAME)

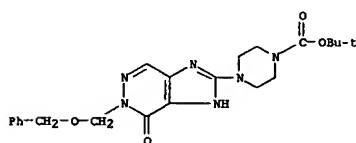


RN 82137-50-6 CAPLUS
 CN 4H-imidazo[4,5-d]pyridazin-4-one, 1,5-dihydro-5-[(phenylmethoxy)methyl]- (9CI) (CA INDEX NAME)

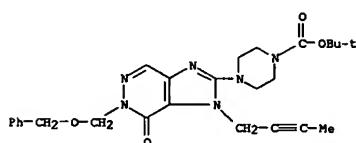


IT 635722-45-1P 635722-46-2P 635722-47-3P

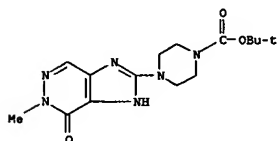
L4 ANSWER 11 OF 26 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
 [(phenylmethoxy)methyl]-1H-imidazo[4,5-d]pyridazin-2-yl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



RN 635722-78-0 CAPLUS
 CN 1-Piperazinecarboxylic acid, 4-[1-(2-butynyl)-6,7-dihydro-7-oxo-6-[(phenylmethoxy)methyl]-1H-imidazo[4,5-d]pyridazin-2-yl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



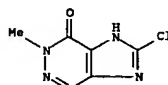
RN 635722-82-6 CAPLUS
 CN 1-Piperazinecarboxylic acid, 4-(4,5-dihydro-5-methyl-4-oxo-1H-imidazo[4,5-d]pyridazin-2-yl)-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



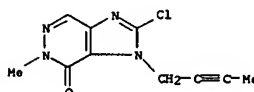
RN 635723-02-3 CAPLUS
 CN 1-Piperazinecarboxylic acid, 4-[6,7-dihydro-7-oxo-6-[(phenylmethoxy)methyl]-1H-imidazo[4,5-d]pyridazin-2-yl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

L4 ANSWER 11 OF 26 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

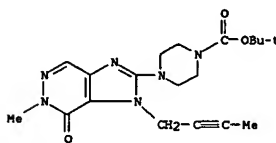
635722-77-9P 635722-78-0P 635722-82-6P
 635723-04-5P 635723-14-7P
 635723-21-6P 635723-22-7P 635723-23-8P
 635723-61-4P 635723-63-6P 635723-65-8P
 635723-67-0P 635723-79-4P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (prepn. of purinone derivs. as dipeptidylpeptidase IV inhibitors)
 RN 635722-45-1 CAPLUS
 CN 4H-imidazo[4,5-d]pyridazin-4-one, 2-chloro-1,5-dihydro-5-methyl- (9CI) (CA INDEX NAME)



RN 635722-46-2 CAPLUS
 CN 4H-imidazo[4,5-d]pyridazin-4-one, 3-(2-butynyl)-2-chloro-3,5-dihydro-5-methyl- (9CI) (CA INDEX NAME)

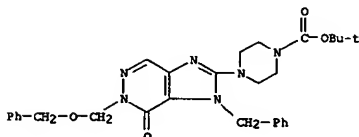


RN 635722-47-3 CAPLUS
 CN 1-Piperazinecarboxylic acid, 4-[1-(2-butynyl)-6,7-dihydro-6-methyl-7-oxo-1H-imidazo[4,5-d]pyridazin-2-yl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

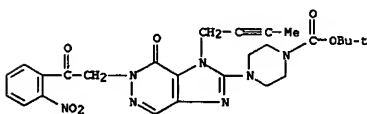


RN 635722-77-9 CAPLUS
 CN 1-Piperazinecarboxylic acid, 4-[4,5-dihydro-4-oxo-5-

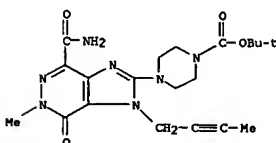
L4 ANSWER 11 OF 26 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



RN 635723-04-5 CAPLUS
 CN 1-Piperazinecarboxylic acid, 4-[1-(2-butynyl)-6,7-dihydro-6-[2-(2-nitrophenyl)-2-oxoethyl]-7-oxo-1H-imidazo[4,5-d]pyridazin-2-yl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



RN 635723-14-7 CAPLUS
 CN 1-Piperazinecarboxylic acid, 4-[4-(aminocarbonyl)-1-(2-butynyl)-6,7-dihydro-6-methyl-7-oxo-1H-imidazo[4,5-d]pyridazin-2-yl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



RN 635723-21-6 CAPLUS
 CN 4H-imidazo[4,5-d]pyridazin-4-one, 1,5-dihydro-5-methyl-2-(4-piperidinyl)-, mono(trifluoroacetate) (9CI) (CA INDEX NAME)

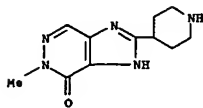
CN 1

CN 635723-20-5
 CN C11 H15 N5 O

<12/21/2005>

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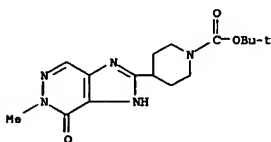
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CRN 76-05-1
CMF C2 H F3 02

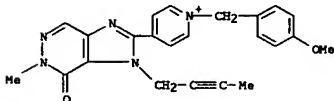


635723-22-7 CAPLUS
1-Piperidinecarboxylic acid, 4-(4,5-dihydro-5-methyl-4-oxo-1H-imidazo[4,5-d]pyridazin-2-yl)-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



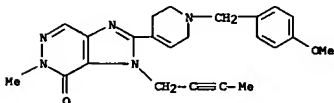
635723-23-8 CAPLUS
1-Piperidinecarboxylic acid, 4-[1-(2-butynyl)-6,7-dihydro-6-methyl-7-oxo-1H-imidazo[4,5-d]pyridazin-2-yl]-, 1,1-dimethylethyl ester (9CI) (CA
INDEX NAME)

(Continued)

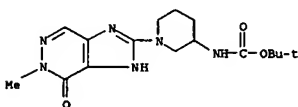


● Cl^-

635723-67-0 CAPIUS
4H-Imidazo[4,5-d]pyridazin-4-one, 3-(2-butynyl)-3,5-dihydro-5-methyl-2-[1,2,3,6-tetrahydro-1-[(4-methoxyphenyl)methyl]-4-pyridinyl]- (9CI) (CA
INDEX NAME)

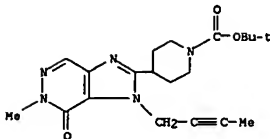


635723-79-4 CAPLUS
Carbamic acid, [1-(4,5-dihydro-5-methyl-4-oxo-1H-imidazo[4,5-d]pyridazin-2-yl)-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

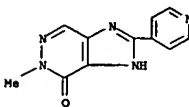


30 THERE ARE 38 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

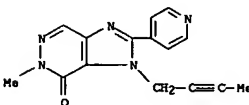
(Continued)



635723-61-4 CAPLUS
4H-Imidazo[4,5-d]pyridazin-4-one, 1,5-dihydro-5-methyl-2-(4-pyridinyl)-
(9CI) (CA INDEX NAME)



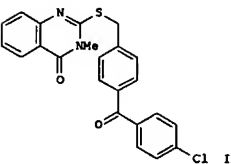
635723-63-6 CAPLUS
4H-Imidazo[4,5-d]pyridazin-4-one, 3-(2-butynyl)-3,5-dihydro-5-methyl-2-(4-pyridinyl)- (9CI) (CA INDEX NAME)



635723-65-8 CAPIUS
Pyridinium, 4-[1-(2-butynyl)-6,7-dihydro-6-methyl-7-oxo-1H-imidazo[4,5-
d]pyridazin-2-yl]-1-[(4-methoxyphenyl)methyl]-, chloride (9CI) (CA INDEX
NAME)

14 ANSWER 12 OF 26 CAPLUS COPYRIGHT 2005 ACS ON STN
ACCESSION NUMBER: 1996:685153 CAPLUS
DOCUMENT NUMBER: 125:328725
TITLE: Preparation of heterocyclic compounds as antitumor agents
INVENTOR(S): Aono, Tetsuya; Marui, Shogo; Itoh, Fumio; Yamaoka, Masuo; Nakao, Masafumi
PATENT ASSIGNEE(S): Takeda Chemical Industries, Ltd., Japan
SOURCE: Eur. Pat. Appl., 145 pp.
CODEN: EPOXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 733633	A1	19690525	EP 1996-104176	19960315
EP 733633	B1	20030528		
R: AT, BR, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LI, LU, NL, PT, SE				
US 5753664	A	19800519	US 1996-614893	19960313
CA 2171932	AA	19690517	US 1996-2171932	19960315
JP 09091485	A	19970408	JP 1996-09091485	19960315
AT 241625	A2	20030615	AT 1996-104176	19960315
PRIORITY APPLN. INFO.:			JP 1995-568469	19950316
			JP 1995-191770	19950727
OTHER SOURCE(S):	HAARPAT	125:328725		
GI				



RZ21C0R2 {I: R= (un)substituted condensed pyrimidine or condensed pyridazinone ring (sic); R2 cyclic group; Z = divalent group; Z1 = divalent cyclic group) were prepared. Thus, 2-mercapto-3-methyl-(4,3H)-quinoxalinnone was etherified by 4-ClC6H4CO6H4 (CH2Br)-4 to give title compound II. Data for in vivo antitumor activity of selected I were given.

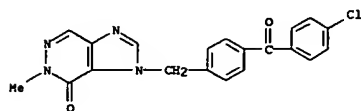
183164-89-8P

RL: RAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOG (Biological study); PREP (Preparation); USES (Uses) (preparation of heterocyclic compds. as antitumor agents)

183164-89-8 CAPUS

4H-Imidazo[4,5-d]pyridazin-4-one, 3-{[4-(4-chlorobenzoyl)phenyl]methyl}-3,3-dihydro-5-methyl-19CI (CA INDEX NAME)

L4 ANSWER 12 OF 26 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

L4 ANSWER 13 OF 26 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1995:945308 CAPLUS
DOCUMENT NUMBER: 124:146089

TITLE: Synthesis and anticonvulsant of 3H-imidazo[4,5-c]pyridazine, 1H-imidazo[4,5-d]pyridazine and 1H-benzimidazole analog of 9-(2-fluorobenzyl)-6-methylamino-9H-purine

AUTHOR(S): Kelley, James L.; Thompson, James B.; Styles, Virgil L.; Soroko, Francis E.; Cooper, Barrett R.

CORPORATE SOURCE: Division of Organic Chemistry, Burroughs Wellcome Co., Research Triangle Park, NC, 27709, USA

SOURCE: Journal of Heterocyclic Chemistry (1995), 32(5), 1423-8

CODEN: JHCTAD; ISSN: 0022-152X

PUBLISHER: HeteroCorporation

DOCUMENT TYPE: Journal

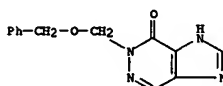
LANGUAGE: English

AB The 3H-imidazo[4,5-c]pyridazine, 1H-imidazo[4,5-d]pyridazine, and 1H-benzimidazole analogs of the potent anticonvulsant purine 9-(2-fluorobenzyl)-6-methylamino-9H-purine (78U79) were synthesized and tested for anticonvulsant activity. The target compds. were prepared from 3,4,5-trichloropyridazine as starting material. Thus, 1-(2-fluorophenyl)--imidazo[4,5-d]pyridazin-4-amine was synthesized in four steps from 5-[(benzylomethyl)-1,5-dihydro-4H-imidazo[4,5-d]pyridazin-4-one. Benzimidazole analogs were prepared from 2,6-dinitroaniline in three stages. These compds. were one-tenth or less as active as 78U79 in protecting rats against maximal electroshock-induced seizures.

IT 82137-50-6
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation and anticonvulsant activity of (fluorobenzyl)methylaminopurine analogs)

RN 82137-50-6 CAPLUS

CN 4H-imidazo[4,5-d]pyridazin-4-one, 1,5-dihydro-5-[(phenylmethoxy)methyl]- (9CI) (CA INDEX NAME)

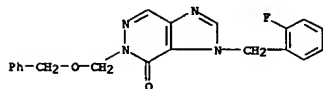


IT 173279-47-5P 173279-55-5P 173279-56-6P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and anticonvulsant activity of (fluorobenzyl)methylaminopurine analogs)

RN 173279-47-5 CAPLUS

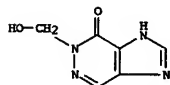
CN 4H-imidazo[4,5-d]pyridazin-4-one, 3-[(2-fluorophenyl)methyl]-3,5-dihydro-5-[(phenylmethoxy)methyl]- (9CI) (CA INDEX NAME)

L4 ANSWER 13 OF 26 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



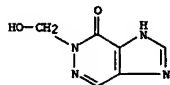
RN 173279-55-5 CAPLUS

CN 4H-imidazo[4,5-d]pyridazin-4-one, 1,5-dihydro-5-(hydroxymethyl)- (9CI) (CA INDEX NAME)



RN 173279-56-6 CAPLUS

CN 4H-imidazo[4,5-d]pyridazin-4-one, 1,5-dihydro-5-(hydroxymethyl)-, monohydrochloride (9CI) (CA INDEX NAME)



● HCl

L4 ANSWER 14 OF 26 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1995:896118 CAPLUS
DOCUMENT NUMBER: 123:286058

TITLE: Preparation of imidazopyridazine angiotensin II antagonists

INVENTOR(S): Dorsch, Dieter; Mederski, Werner; Osswald, Mathias; Schelling, Pierre; Beier, Norbert; Lues, Inge; Minck, Klaus-Otto

PATENT ASSIGNEE(S): Merck Patent GmbH, Germany

SOURCE: Ger. Offen., 20 pp.
CODEN: GWXKX

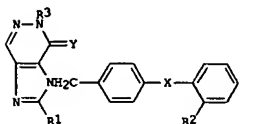
DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 4339868	A1	19950524	DE 1993-4339868	19931123
EP 657454	A1	19950614	EP 1994-117936	19941114
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, NL, PT, SE				
CA 2136288	AA	19950524	CA 1994-2136288	19941121
AU 9478950	A1	19950601	AU 1994-78950	19941121
NO 9404469	A	19950524	NO 1994-4469	19941122
ZA 9409260	A	19950803	ZA 1994-9260	19941122
CN 1109057	A	19950927	CN 1994-118958	19941122
JP 07267959	A2	19951017	JP 1994-288411	19941122
HU 71113	A2	19951128	HU 1994-3364	19941123
PRIORITY APPLN. INFO.: OTHER SOURCE(S):	MARPAT 123:286058			
GI	DE 1993-4339868 A 19931123			



AB The title compds. [I; R1 = (un)substituted alkyl, alkenyl, alkynyl, etc.; R2 = H, (un)substituted CO2H, CN, NO2, (un)substituted NH2, etc.; R3 = (un)substituted alkyl, (un)substituted alkenyl, (un)substituted alkynyl; X = NHCO, CONH, OCH(CO2H), NHCH(CO2H), etc.; Y = O, S], useful as angiotensin II antagonists (no data), are prepared and I-containing formulations presented.

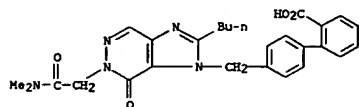
IT 169751-06-4P 169751-07-5P 169752-07-2P
169752-08-3P 169752-09-4P 169752-10-7P
169752-11-0P 169752-12-9P 169752-13-0P
169752-14-1P 169752-15-2P 169752-16-3P
169752-17-4P 169752-18-5P 169752-19-6P
169752-20-9P 169752-21-0P

RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

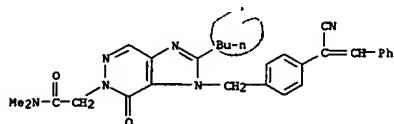
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<12/21/2005>

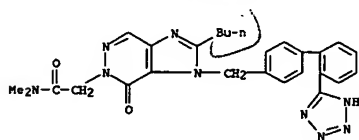
L4 ANSWER 14 OF 26 CAPLUS COPYRIGHT 2005 ACS ON STN (Continued)
(prepn. of imidazopyridazine angiotensin II antagonists)
RN 169751-86-4 CAPLUS
CN [1,1'-Biphenyl]-2-carboxylic acid, 4'-[2-butyl-6-[2-(dimethylamino)-2-oxoethyl]-6,7-dihydro-7-oxo-1H-imidazo[4,5-d]pyridazin-1-yl]methyl]- (9CI) (CA INDEX NAME)



RN 169751-87-5 CAPLUS
CN 5H-Imidazo[4,5-d]pyridazine-5-acetamide, 2-butyl-3-[[4-(1-cyano-2-phenylethenyl)phenyl]methyl]-3,4-dihydro-N,N-dimethyl-4-oxo- (CA INDEX NAME)



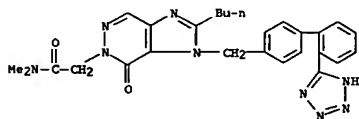
RN 169752-07-2 CAPLUS
CN 5H-Imidazo[4,5-d]pyridazine-5-acetamide, 2-butyl-3,4-dihydro-N,N-dimethyl-4-oxo-3-[[2'-(1H-tetrazol-5-yl)[1,1'-biphenyl]-4-yl]methyl]-, potassium salt (9CI) (CA INDEX NAME)



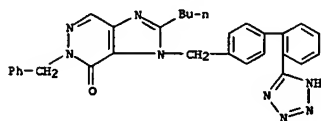
● K

RN 169752-08-3 CAPLUS
CN Benzoic acid, 2-[[4-[[2-butyl-6-[2-(dimethylamino)-2-oxoethyl]-6,7-

L4 ANSWER 14 OF 26 CAPLUS COPYRIGHT 2005 ACS ON STN (Continued)

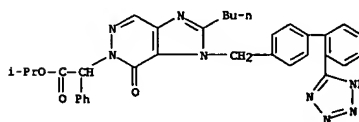


RN 169752-12-9 CAPLUS
CN 4H-Imidazo[4,5-d]pyridazin-4-one, 2-butyl-3,5-dihydro-5-(phenylmethyl)-3-[[2'-(1H-tetrazol-5-yl)[1,1'-biphenyl]-4-yl]methyl]-, potassium salt (9CI) (CA INDEX NAME)



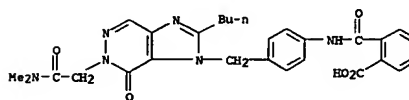
● K

RN 169752-13-0 CAPLUS
CN 5H-Imidazo[4,5-d]pyridazine-5-acetic acid, 2-butyl-3,4-dihydro-4-oxo-α-phenyl-3-[[2'-(1H-tetrazol-5-yl)[1,1'-biphenyl]-4-yl]methyl]-, 1-methylethyl ester (9CI) (CA INDEX NAME)

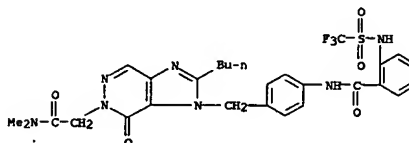


RN 169752-14-1 CAPLUS
CN Pyrrolidine, 1-[[2-butyl-3-[[2'-cyano[1,1'-biphenyl]-4-yl]methyl]-3,4-dihydro-4-oxo-5H-imidazo[4,5-d]pyridazin-5-yl]acetyl]- (9CI) (CA INDEX NAME)

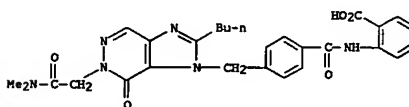
L4 ANSWER 14 OF 26 CAPLUS COPYRIGHT 2005 ACS ON STN (Continued)
dihydro-7-oxo-1H-imidazo[4,5-d]pyridazin-1-yl]methyl]phenyl]amino]carbonyl]- (9CI) (CA INDEX NAME)



RN 169752-09-4 CAPLUS
CN 5H-Imidazo[4,5-d]pyridazine-5-acetamide, 2-butyl-3,4-dihydro-N,N-dimethyl-4-oxo-3-[[4-[[2-[[[trifluoromethyl]sulfonyl]amino]benzoyl]amino]phenyl]methyl]- (9CI) (CA INDEX NAME)

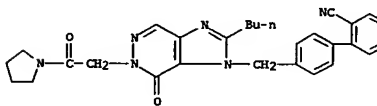


RN 169752-10-7 CAPLUS
CN 5H-Imidazo[4,5-d]pyridazine-5-acetamide, 2-butyl-3,4-dihydro-N,N-dimethyl-4-oxo-3-[[2'-(1H-tetrazol-5-yl)[1,1'-biphenyl]-4-yl]methyl]- (9CI) (CA INDEX NAME)

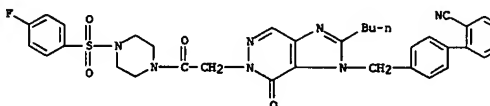


RN 169752-11-8 CAPLUS
CN Benzoic acid, 2-[[4-[[2-butyl-6-[2-(dimethylamino)-2-oxoethyl]-6,7-

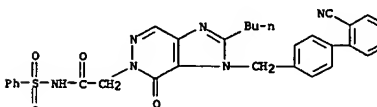
L4 ANSWER 14 OF 26 CAPLUS COPYRIGHT 2005 ACS ON STN (Continued)



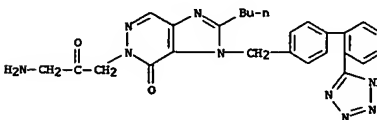
RN 169752-15-2 CAPLUS
CN Piperazine, 1-[[2-butyl-3-[[2'-cyano[1,1'-biphenyl]-4-yl]methyl]-3,4-dihydro-4-oxo-5H-imidazo[4,5-d]pyridazin-5-yl]acetyl]-4-[[4-(fluorophenyl)sulfonyl]- (9CI) (CA INDEX NAME)



RN 169752-16-3 CAPLUS
CN 5H-Imidazo[4,5-d]pyridazine-5-acetamide, 2-butyl-3-[[2'-cyano[1,1'-biphenyl]-4-yl]methyl]-3,4-dihydro-4-oxo-N-(phenylsulfonyl)- (9CI) (CA INDEX NAME)



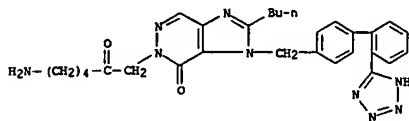
RN 169752-17-4 CAPLUS
CN 4H-Imidazo[4,5-d]pyridazin-4-one, 5-(3-amino-2-oxopropyl)-2-butyl-3,5-dihydro-3-[[2'-(1H-tetrazol-5-yl)[1,1'-biphenyl]-4-yl]methyl]- (9CI) (CA INDEX NAME)



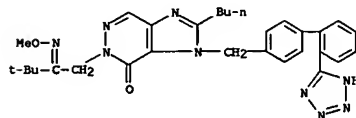
<12/21/2005>

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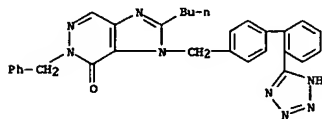
L4 ANSWER 14 OF 26 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
 RN 169752-18-3 CAPLUS
 CN 4H-imidazo[4,5-d]pyridazin-4-one, 5-(6-amino-2-oxohexyl)-2-butyl-3,5-dihydro-3-[[2'-(1H-tetrazol-5-yl)[1,1'-biphenyl]-4-yl]methyl]- (9CI) (CA INDEX NAME)



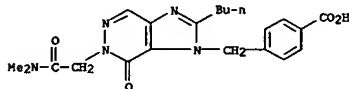
RN 169752-19-6 CAPLUS
 CN 4H-imidazo[4,5-d]pyridazin-4-one, 2-butyl-3,5-dihydro-5-[2-(methoxymino)-3,3-dimethylbutyl]-3-[[2'-(1H-tetrazol-5-yl)[1,1'-biphenyl]-4-yl]methyl]- (9CI) (CA INDEX NAME)



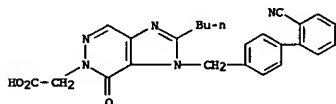
RN 169752-20-9 CAPLUS
 CN 4H-imidazo[4,5-d]pyridazin-4-one, 2-butyl-3,5-dihydro-5-(phenylmethyl)-3-[[2'-(1H-tetrazol-5-yl)[1,1'-biphenyl]-4-yl]methyl]- (9CI) (CA INDEX NAME)



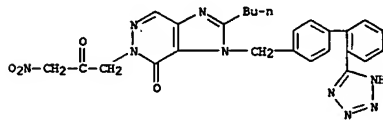
RN 169752-21-0 CAPLUS
 CN 5H-imidazo[4,5-d]pyridazine-5-acetic acid, 2-butyl-3,4-dihydro-4-oxo-α-phenyl-3-[[2'-(1H-tetrazol-5-yl)[1,1'-biphenyl]-4-yl]methyl]-, 1-methylethyl ester, potassium salt (9CI) (CA INDEX NAME)



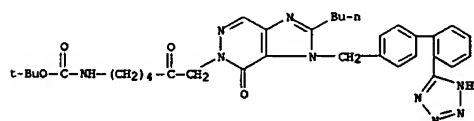
RN 169751-95-5 CAPLUS
 CN 5H-imidazo[4,5-d]pyridazine-5-acetic acid, 2-butyl-3-[[2'-cyano[1,1'-biphenyl]-4-yl]methyl]-3,4-dihydro-4-oxo- (9CI) (CA INDEX NAME)



RN 169751-96-6 CAPLUS
 CN 4H-imidazo[4,5-d]pyridazin-4-one, 2-butyl-3,5-dihydro-5-(3-nitro-2-oxopropyl)-3-[[2'-(1H-tetrazol-5-yl)[1,1'-biphenyl]-4-yl]methyl]- (9CI) (CA INDEX NAME)



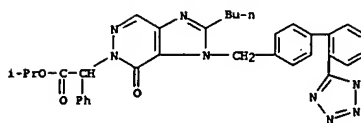
RN 169751-97-7 CAPLUS
 CN Carbamic acid, [6-[2-butyl-3,4-dihydro-4-oxo-3-[[2'-(1H-tetrazol-5-yl)[1,1'-biphenyl]-4-yl]methyl]-5H-imidazo[4,5-d]pyridazin-5-yl]-5-oxohexyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



RN 169751-98-8 CAPLUS
 CN 4H-imidazo[4,5-d]pyridazin-4-one, 2-butyl-5-(3,3-dimethyl-2-oxobutyl)-3,5-

<12/21/2005>

L4 ANSWER 14 OF 26 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



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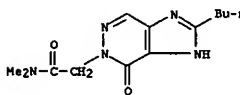
IT 169751-90-0 169751-93-3 169751-94-4
 169751-95-5 169751-96-6 169751-97-7
 169751-98-8

RL: RCT (Reactant); RACT (Reactant or reagent)

(preparation of imidazopyridazine angiotensin II antagonists from)

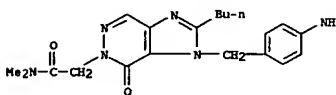
RN 169751-90-0 CAPLUS

CN 5H-imidazo[4,5-d]pyridazine-5-acetamide, 2-butyl-1,4-dihydro-N,N-dimethyl-4-oxo- (9CI) (CA INDEX NAME)



RN 169751-93-3 CAPLUS

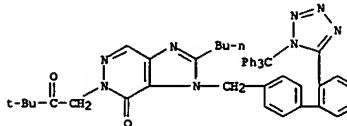
CN 5H-imidazo[4,5-d]pyridazine-5-acetamide, 3-[(4-aminophenyl)methyl]-2-butyl-3,4-dihydro-N,N-dimethyl-4-oxo- (9CI) (CA INDEX NAME)



RN 169751-94-4 CAPLUS

CN Benzoic acid, 4-[[2-butyl-6-[2-(dimethylamino)-2-oxoethyl]-6,7-dihydro-7-oxo-1H-imidazo[4,5-d]pyridazin-1-yl]methyl]- (9CI) (CA INDEX NAME)

L4 ANSWER 14 OF 26 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
 dihydro-3-[[2'-[1-(triphenylmethyl)-1H-tetrazol-5-yl][1,1'-biphenyl]-4-yl]methyl]- (9CI) (CA INDEX NAME)



IT 169751-88-6P 169751-99-9P 169752-04-9P

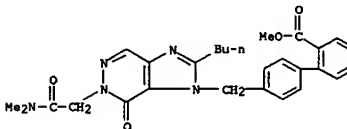
169752-05-0P 169752-06-1P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of imidazopyridazine angiotensin II antagonists from)

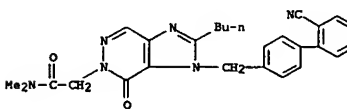
RN 169751-88-6 CAPLUS

CN [1,1'-Biphenyl]-2-carboxylic acid, 4'-[[2-butyl-6-[2-(dimethylamino)-2-oxoethyl]-6,7-dihydro-7-oxo-1H-imidazo[4,5-d]pyridazin-1-yl]methyl]-, methyl ester (9CI) (CA INDEX NAME)



RN 169751-99-9 CAPLUS

CN 5H-imidazo[4,5-d]pyridazine-5-acetamide, 2-butyl-3-[[2'-cyano[1,1'-biphenyl]-4-yl]methyl]-3,4-dihydro-N,N-dimethyl-4-oxo- (9CI) (CA INDEX NAME)

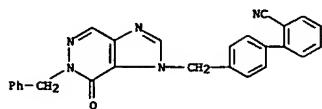


RN 169752-04-9 CAPLUS

CN [1,1'-Biphenyl]-2-carbonitrile, 4'-[[6,7-dihydro-7-oxo-6-(phenylmethyl)-1H-imidazo[4,5-d]pyridazin-1-yl]methyl]- (9CI) (CA INDEX NAME)

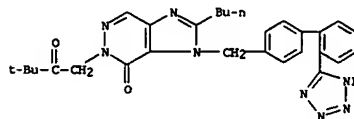
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L4 ANSWER 14 OF 26 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



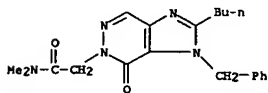
RN 169752-05-0 CAPLUS

CN 4H-imidazo[4,5-d]pyridazin-4-one, 2-butyl-3-((3,3-dimethyl-2-oxobutyl)-3,5-dihydro-3-[[2'-(1H-tetrazol-5-yl)[1,1'-biphenyl]-4-yl]methyl)- (9CI) (CA INDEX NAME)



RN 169752-06-1 CAPLUS

CN 5H-imidazo[4,5-d]pyridazine-5-acetamide, 2-butyl-3,4-dihydro-N,N-dimethyl-4-oxo-3-(phenylmethyl)- (9CI) (CA INDEX NAME)



L4 ANSWER 15 OF 26 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

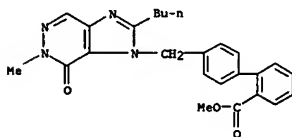
IT 154611-64-0P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation and hydrolysis of)

RN 154611-64-0 CAPLUS

CN [1,1'-Biphenyl]-2-carboxylic acid, 4'-[(2-butyl-6,7-dihydro-6-methyl-7-oxo-1H-imidazo[4,5-d]pyridazin-1-yl)methyl]-, methyl ester (9CI) (CA INDEX NAME)



L4 ANSWER 15 OF 26 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1994:270281 CAPLUS

DOCUMENT NUMBER: 120:270281

TITLE:

The synthesis of heterosubstituted benzimidazole derivatives with potent angiotensin II antagonist activity

AUTHOR(S):

CORPORATE SOURCE:

SOURCE:

Gibson, K. H.; Wood, R.; Oldham, A. A.; Major, J. S. Zeneca Pharm., Macclesfield/Cheshire, SK10 4TG, UK Bioorganic & Medicinal Chemistry Letters (1993), 3(6), 1019-24

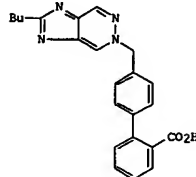
DOCUMENT TYPE:

LANGUAGE:

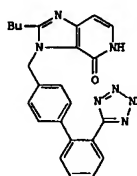
GI

CODEN: BMCLEB; ISSN: 0960-894X

English



I



II

AB The syntheses and biol. activities of novel imidazo[4,5-d]pyridazine and imidazo[4,5-c]pyridone derivs., e.g., I and II, resp., are reported.

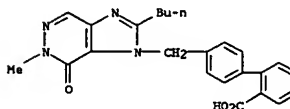
These series include analogs which have in vitro and in vivo Angiotensin II antagonist activities which are amongst the most potent yet recorded.

IT 154611-65-1P

RL: SPN (Synthetic preparation); PREP (Preparation) (preparation and angiotensin antagonist activity of)

RN 154611-65-1 CAPLUS

CN [1,1'-Biphenyl]-2-carboxylic acid, 4'-[(2-butyl-6,7-dihydro-6-methyl-7-oxo-1H-imidazo[4,5-d]pyridazin-1-yl)methyl]- (9CI) (CA INDEX NAME)



L4 ANSWER 16 OF 26 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1993:428542 CAPLUS

DOCUMENT NUMBER: 119:28542

TITLE:

Preparation of heterocyclylcycloalkyltriols as

virucides and parasiticides

INVENTOR(S):

PATENT ASSIGNER(S):

SOURCE:

Jaehne, Gerhard; Winkler, Irvin; Melsberg, Matthias; Haanel, Ralf

Hoechst A.-G., Germany

Eur. Pat. Appl., 37 pp.

DOCUMENT TYPE:

LANGUAGE:

FAMILY ACC. NUM. COUNT: 1

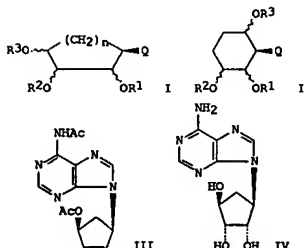
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 521463	A2	19930107	EP 1992-111063	19920630
EP 521463	A3	19930414		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, MC, NL, PT, SE				
CA 2073111	AA	19930105	CA 1992-2073111	19920703
JP 07238070	A2	19950912	JP 1992-176939	19920703
US 5631259	A	19970520	US 1995-466883	19950606
PRIORITY APPLN. INFO.:				
			DE 1991-4122068	A 19910704
			US 1992-907571	B1 19920702

OTHER SOURCE(S):

GI

MARPAT 119:28542

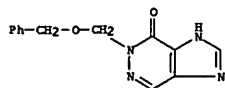


AB Carbocyclic nucleoside analogs [I and II]; Q = N-containing (un)substituted mono- or bicyclic heterocyclyl; n = 1-4; R1 - R3 = H, alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl, PhCH2, trityl, PhCH2OCH2, acyl; or R1R2 = atoms to complete a (un)substituted 1,3-dioxopentane ring or a cyclic sulfite, sulfate, phosphite, or phosphate, or (CH2)3NH are prepared. Thus, cyclopentene III (preparation given) was cis-hydroxylated with with N-methylmorpholine N-oxide/OsO4 in H2O/THF over 5-6 days in 52.7% yield and the product was heated with aqueous NH3 in pyridine to give 86% title

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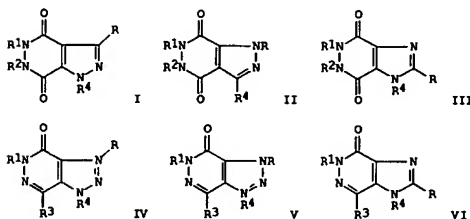
<12/21/2005>

L4 ANSWER 16 OF 26 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
 compd. IV. IV inhibited vaccinia virus in HeLa cells with min.
 inhibitory concn. of 0.05 µg/mL.
 IT 82137-50-6
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (reaction of, in preparation of nucleoside analog virucide and
 parasiticide)
 RN 82137-50-6 CAPLUS
 CN 4H-Imidazo[4,5-d]pyridazin-4-one, 1,5-dihydro-5-[(phenylmethoxy)methyl]-
 (9CI) (CA INDEX NAME)



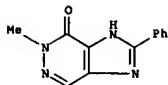
L4 ANSWER 17 OF 26 CAPLUS COPYRIGHT 2005 ACS on STN
 ACCESSION NUMBER: 1988:570450 CAPLUS
 DOCUMENT NUMBER: 109:170450
 TITLE: Preparation of pyrazolopyridazine and
 imidazolopyridazine derivatives as antiinflammatory
 agents
 INVENTOR(S): Oda, Hirohisa; Masaki, Yukio; Nagashima, Hiroshi;
 Imai, Eiji; Ohira, Kazuo
 PATENT ASSIGNEE(S): Taiyo Yakuin Kogyo K. K., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.
 CODEN: JKKXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 63145282	A2	19880617	JP 1986-290467	19861208
PRIORITY APPL. INFO.: OTHER SOURCE(S): GI			JP 1986-290467	19861208
		MARPAT 109:170450		

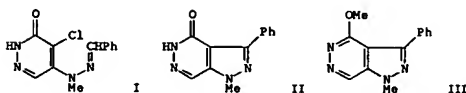


AB Antiinflammatory title deriva. (I-VI; R = aryl; R1, R2 = alkyl, aralkyl, aryl; R3 = H, halo, aryl; R4 = H, alkyl, aralkyl, aryl) and their salts, useful as anticheumatics, are prepared. Treating 2-methyl-4,5-diamino-3(2H)-pyridazinone and PhCHO in PhNO2 at 180° for 3 h gave 65% VI (R = Ph, R1 = Me, R3 = R4 = H) (VII). VII at 100 mg/kg orally showed 81% inhibition of carrageenin-induced paw edema in rats, vs. 48% for mepirizole.
 IT 96017-45-7P, 5-Methyl-2-phenylimidazo[4,5-d]pyridazin-4(5H)-one
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (preparation of, as antiinflammatory agent)
 RN 96017-45-7 CAPLUS
 CN 4H-Imidazo[4,5-d]pyridazin-4-one, 1,5-dihydro-5-methyl-2-phenyl- (9CI)
 (CA INDEX NAME)

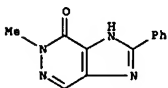
L4 ANSWER 17 OF 26 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



L4 ANSWER 18 OF 26 CAPLUS COPYRIGHT 2005 ACS on STN
 ACCESSION NUMBER: 1985:185035 CAPLUS
 DOCUMENT NUMBER: 102:185035
 TITLE: The synthesis of pyrazolo[3,4-d]pyridazines.
 Photochemical cyclization to pyrazolo[3,4-d]pyridazin-
 4(5H)-ones with subsequent functionalization
 AUTHOR(S): Kaji, Kenji; Nagashima, Hitomi; Ohta, Yusho; Tabashi,
 Keizo; Oda, Hirohisa
 CORPORATE SOURCE: Gifu Coll. Pharm., Gifu, 502, Japan
 SOURCE: Journal of Heterocyclic Chemistry (1984), 21(5),
 1249-55
 CODEN: JHTCAD; ISSN: 0022-152X
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 OTHER SOURCE(S): CASREACT 102:185035
 GI



AB The synthesis of 1,3-disubstituted and 1,3,5-trisubstituted
 1H-pyrazolo[3,4-d]pyridazin-4(5H)-ones is conveniently performed by
 photochem. cyclization. Functionalization of the former compds. leading
 to the formation of 1,4-disubstituted and 1,3,4-trisubstituted
 1H-pyrazolo[3,4-d]pyridazines is smoothly effected through pertinent
 nucleophilic substitutions. Thus, irradiation of pyridazinone I in C6H6
 gave
 89% pyrazolopyridazinone II, chlorination of which with POCl3 followed by
 treatment with MeONa gave pyrazolopyridazine III.
 IT 96017-45-7P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
 (Reactant or reagent)
 (preparation and mesylation of)
 RN 96017-45-7 CAPLUS
 CN 4H-Imidazo[4,5-d]pyridazin-4-one, 1,5-dihydro-5-methyl-2-phenyl- (9CI)
 (CA INDEX NAME)

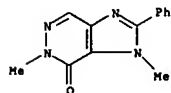


IT 96017-47-9P
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (preparation of)
 RN 96017-47-9 CAPLUS
 CN 4H-Imidazo[4,5-d]pyridazin-4-one, 3,5-dihydro-3,5-dimethyl-2-phenyl- (9CI)

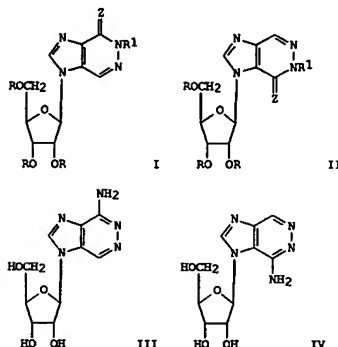
Habte

<12/21/2005>

L4 ANSWER 18 OF 26 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
(CA INDEX NAME)



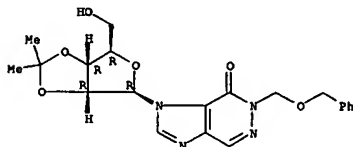
L4 ANSWER 19 OF 26 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1984:571641 CAPLUS
DOCUMENT NUMBER: 101:171641
TITLE: Synthesis and NMR studies of some imidazo[4,5-d]pyridazine nucleosides
AUTHOR(S): Gagnier, R. Paul; Halat, Michael J.; Otter, Brian A.
CORPORATE SOURCE: Grad. Sch. Med. Sci., Cornell Univ., New York, NY, 10021, USA
SOURCE: Journal of Heterocyclic Chemistry (1984), 21(2), 481-9
CODEN: JHCTAD; ISSN: 0022-152X
DOCUMENT TYPE: Journal
LANGUAGE: English
GI



AB Unlike imidazo[4,5-d]pyridazin-4(5H)-one, which undergoes ribosylation at N-6 in the Vorbruggen procedure for nucleoside synthesis, the 5-benzoyloxymethyl derivative undergoes ribosylation at N-1 and N-3 to give a separable mixture of nucleosides I and II (R = Bz, R1 = PhCH2OCH2, Z=O). Removal of the N-5 blocking groups by treatment with BCl3 at -78° affords the intermediates I and II (R = Bz, R1 = H, Z=O), which were debenzoylated to give I and II (R = R1 = H, Z=O). Thiation of I and II (R = Bz, R1 = H, Z=O), followed by S-methylation and ammonolysis leads to the amino nucleosides III and IV. The glycosylation sites of these nucleosides were assigned by using a combination of 1H and 13C NMR data, especially measurements of the spin-lattice relaxation times of the base

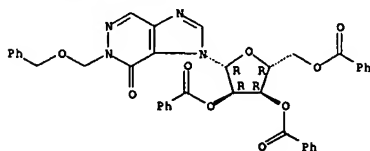
L4 ANSWER 19 OF 26 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
protons. Using these techniques, it is shown that a nucleoside previously reported to be IV is in fact the N-6 isomer.
IT 82137-53-9P
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(preparation and NMR of)
RN 82137-53-9 CAPLUS
CN 4H-Imidazo[4,5-d]pyridazin-4-one, 3,5-dihydro-3-[2,3-O-(1-methylethylidene)-β-D-ribofuranosyl]-5-[(phenylmethoxy)methyl]- (9CI)
(CA INDEX NAME)

Absolute stereochemistry.



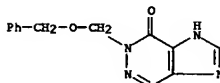
IT 82151-43-7P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
(Reactant or reagent)
(preparation and deblocking of)
RN 82151-43-7 CAPLUS
CN 4H-Imidazo[4,5-d]pyridazin-4-one, 3,5-dihydro-5-[(phenylmethoxy)methyl]-3-(2,3,5-tri-O-benzoyl-β-D-ribofuranosyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT 82137-50-6P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
(Reactant or reagent)
(preparation, trimethylsilylation, and ribosylation of)
RN 82137-50-6 CAPLUS
CN 4H-Imidazo[4,5-d]pyridazin-4-one, 1,5-dihydro-5-[(phenylmethoxy)methyl]- (9CI) (CA INDEX NAME)

L4 ANSWER 19 OF 26 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



L4 ANSWER 20 OF 26 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1983:612483 CAPLUS

DOCUMENT NUMBER: 99:212483

TITLE: Heterocyclic hydrazines and hydrazones. IV. Synthesis of hydrazine derivatives in the [4,5-d]imidazo-4-pyridazinone series

AUTHOR(S): Beljean-Leymarie, Martine; Pays, Michel; Richer, Jean Claude

CORPORATE SOURCE: UER Sci. Pharm., Caen, 14032, Fr. Canadian Journal of Chemistry (1983), 61(11), 2563-6

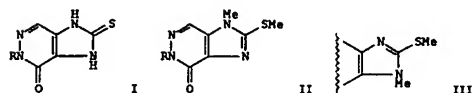
SOURCE: CODEN: CJCHAG; ISSN: 0008-4042

DOCUMENT TYPE: Journal

LANGUAGE: French

OTHER SOURCE(S): CASREACT 99:212483

GI

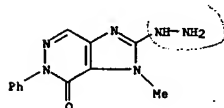


AB Imidazopyridazinones I (R = Me, Ph) were prepared from the corresponding diaminopyridazinones by cyclocondensation with CS₂. Methylation of I gave mixts. of II and III, whose structures have been established by the Overhauser effect. The imidazopyridazinones are used for preparation of hydrazines and hydrazones. The mass spectra of several key intermediates are presented and discussed.

IT 87946-47-2 87946-48-3
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (of thioimidazopyridazinones)

RN 87946-47-2 CAPLUS

CN 1H-imidazo[4,5-d]pyridazin-2,4-dione, 3,5-dihydro-3-methyl-5-phenyl-, 2-hydrazone (9CI) (CA INDEX NAME)



RN 87946-48-3 CAPLUS

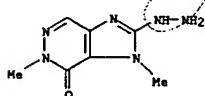
CN 1H-imidazo[4,5-d]pyridazin-2,4-dione, 3,5-dihydro-5-phenyl-, 2-hydrazone (9CI) (CA INDEX NAME)

L4 ANSWER 20 OF 26 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

IT 87946-44-9P 87946-45-0P
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (preparation of)

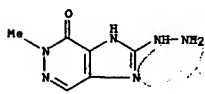
RN 87946-44-9 CAPLUS

CN 1H-imidazo[4,5-d]pyridazin-2,4-dione, 3,5-dihydro-3,5-dimethyl-, 2-hydrazone (9CI) (CA INDEX NAME)



RN 87946-45-0 CAPLUS

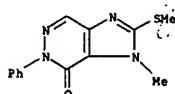
CN 1H-imidazo[4,5-d]pyridazin-2,4-dione, 3,5-dihydro-5-methyl-, 2-hydrazone (9CI) (CA INDEX NAME)



IT 87946-39-2P 87946-40-5P 87946-41-6P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
 (Reactant or reagent)
 (preparation, methylation, and hydrazinolysis of)

RN 87946-39-2 CAPLUS

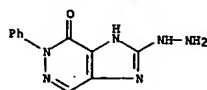
CN 4H-imidazo[4,5-d]pyridazin-4-one, 3,5-dihydro-3-methyl-2-(methylthio)-5-phenyl- (9CI) (CA INDEX NAME)



RN 87946-40-5 CAPLUS

CN 4H-imidazo[4,5-d]pyridazin-4-one, 1,5-dihydro-5-methyl-2-(methylthio)- (9CI) (CA INDEX NAME)

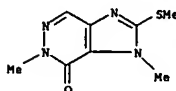
L4 ANSWER 20 OF 26 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



IT 87946-38-1P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
 (Reactant or reagent)
 (preparation and hydrazinolysis of)

RN 87946-38-1 CAPLUS

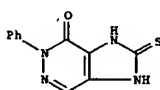
CN 4H-imidazo[4,5-d]pyridazin-4-one, 3,5-dihydro-3,5-dimethyl-2-(methylthio)- (9CI) (CA INDEX NAME)



IT 23215-78-3P 87946-35-8P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
 (Reactant or reagent)
 (preparation and methylation of)

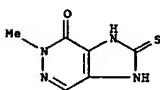
RN 23215-78-3 CAPLUS

CN 4H-imidazo[4,5-d]pyridazin-4-one, 1,2,3,5-tetrahydro-5-phenyl-2-thioxo- (9CI) (CA INDEX NAME)

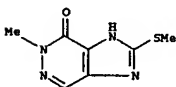


RN 87946-35-8 CAPLUS

CN 4H-imidazo[4,5-d]pyridazin-4-one, 1,2,3,5-tetrahydro-5-methyl-2-thioxo- (9CI) (CA INDEX NAME)

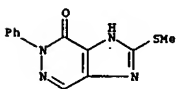


L4 ANSWER 20 OF 26 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



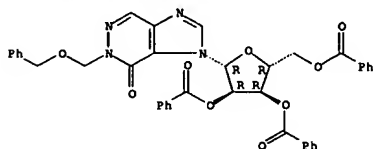
RN 87946-41-6 CAPLUS

CN 4H-imidazo[4,5-d]pyridazin-4-one, 1,5-dihydro-2-(methylthio)-5-phenyl- (9CI) (CA INDEX NAME)



L4 ANSWER 21 OF 26 CAPLUS COPYRIGHT 2005 ACS on STN
 ACCESSION NUMBER: 1982:424148 CAPLUS
 DOCUMENT NUMBER: 97:24148
 TITLE: 1-(β -D-Ribofuranosyl)imidazo[4,5-d]pyridazin-4(5H)-one: a new analog of inosine (1)
 AUTHOR(S): Gagnier, R. Paul; Halat, Michael J.; Otter, Brian A.
 CORPORATE SOURCE: Lab. Org. Chem., Sloan-Kettering Inst., New York, NY, 10021, USA
 SOURCE: Journal of Heterocyclic Chemistry (1982), 19(1), 221-3
 CODEN: JHCCAD; ISSN: 0022-152X
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 AB Imidazo[4,5-d]pyridazin-4(5H)-one, which normally forms the N-6 nucleoside, can be induced to form the N-1 and N-3 nucleosides when a benzoyloxymethyl substituent is incorporated at N-5. The N-5 blocking group can be removed under mild conditions with BCl_3 .
 IT 82151-43-7P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (preparation and deblocking of)
 RN 82151-43-7 CAPLUS
 CN 4H-Imidazo[4,5-d]pyridazin-4-one, 3,5-dihydro-5-[(phenylmethoxy)methyl]-3-(2,3,5-tri-O-benzoyl- β -D-ribofuranosyl)- (9CI) (CA INDEX NAME)

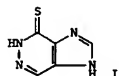
Absolute stereochemistry.



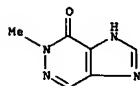
IT 82137-53-9P
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (preparation of)
 RN 82137-53-9 CAPLUS
 CN 4H-Imidazo[4,5-d]pyridazin-4-one, 3,5-dihydro-3-[2,3-O-(1-methylethylidene)- β -D-ribofuranosyl]-5-[(phenylmethoxy)methyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

L4 ANSWER 22 OF 26 CAPLUS COPYRIGHT 2005 ACS on STN
 ACCESSION NUMBER: 1981:407188 CAPLUS
 DOCUMENT NUMBER: 95:7188
 TITLE: Studies on the imidazo[4,5-d]pyridazine ring system. Course of alkylation of imidazo[4,5-d]pyridazine-4-thione
 AUTHOR(S): Chen, Shih-Fong; Panzica, Raymond P.
 CORPORATE SOURCE: Dep. Med. Chem., Univ. Rhode Island, Kingston, RI, 02881, USA
 SOURCE: Journal of Organic Chemistry (1981), 46(12), 2467-73
 CODEN: JOCEAH; ISSN: 0022-3263
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 OTHER SOURCE(S): CASREACT 95:7188
 GI

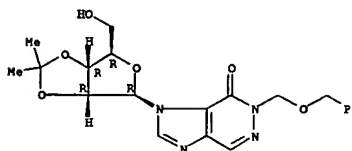


AB The syntheses of certain 4-alkyl-, 4-(arylalkyl)- and 4-(acylthio)imidazo[4,5-d]pyridazines from imidazo[4,5-d]pyridazine-4-thione (I) are described. When 1 equivalent of alkylating agent is used, alkylation occurs, as expected, on 5; however, when an excess of alkylating agent is employed, dialkylated products are formed. A rigorous spectroscopic study and an unequivocal synthesis of 6-methyl-4-(methylthio)imidazo[4,5-d]pyridazine has shown the second site of alkylation to be N6 of the imidazo[4,5-d]pyridazine ring.
 IT 76756-58-6P 76756-59-7P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (preparation and reaction with phosphorus pentasulfide)
 RN 76756-58-6 CAPLUS
 CN 4H-Imidazo[4,5-d]pyridazin-4-one, 1,5-dihydro-5-methyl- (9CI) (CA INDEX NAME)

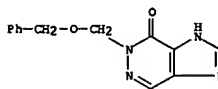


RN 76756-59-7 CAPLUS
 CN 4H-Imidazo[4,5-d]pyridazin-4-one, 1,5-dihydro-2,5-dimethyl- (9CI) (CA INDEX NAME)

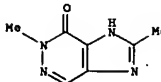
L4 ANSWER 21 OF 26 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



IT 82137-50-6
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (trimethylsilylation of)
 RN 82137-50-6 CAPLUS
 CN 4H-Imidazo[4,5-d]pyridazin-4-one, 1,5-dihydro-5-[(phenylmethoxy)methyl]- (9CI) (CA INDEX NAME)



L4 ANSWER 22 OF 26 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

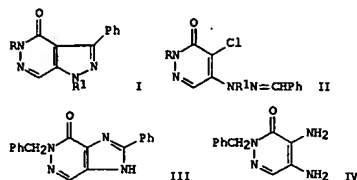


<12/21/2005>

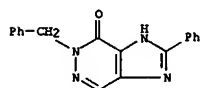
Habte

L4 ANSWER 23 OF 26 CAPLUS COPYRIGHT 2005 ACS on STN
 ACCESSION NUMBER: 1976:164704 CAPLUS
 DOCUMENT NUMBER: 84:164704
 TITLE: Synthesis of pyrazolo[3,4-d]pyridazine and imidazo[4,5-d]pyridazine derivatives
 AUTHOR(S): Kaji, Kenji; Nagashima, Hiromu; Ohta, Yusho; Yoshida, Junko
 CORPORATE SOURCE: Gifu Coll. Pharm., Gifu, Japan
 SOURCE: Rukusokan Kagaku Toronkai Koen Yoshishu, 8th (1975), 24-8. Pharm. Inst., Tohoku Univ.: Sendai, Japan.
 CODEN: 32KOAD
 CONFERENCE
 LANGUAGE: Japanese
 OTHER SOURCE(S): CASREACT 84:164704
 GI

L4 ANSWER 23 OF 26 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



AB Pyrazolo[3,4-d]pyridazines (I, R = R1 = Me, R = Me, R1 = PhCH2; R = PhCH2, R1 = Me, R = Ph, R1 = Me, R = Ph, R1 = PhCH2) were prepared by irradiation of the appropriate hydrazinopyridazines II, which were obtained by alkylation of II (R1 = H). The imidazopyridazine III was prepared by cyclization of the diaminopyridazine IV with PhCHO.
 IT 59026-59-4P
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (preparation of)
 RN 59026-59-4 CAPLUS
 CN 4H-imidazo[4,5-d]pyridazin-4-one, 1,5-dihydro-2-phenyl-5-(phenylmethyl)-(9CI) (CA INDEX NAME)



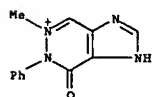
L4 ANSWER 24 OF 26 CAPLUS COPYRIGHT 2005 ACS on STN
 ACCESSION NUMBER: 1971:22864 CAPLUS
 DOCUMENT NUMBER: 74:22864
 TITLE: 2-Alkylpyridazonium compounds
 INVENTOR(S): Reicheneder, Franz; Krepp, Rudolf
 PATENT ASSIGNER(S): Badische Anilin- & Soda-Fabrik AG
 SOURCE: Ger. Offen., 17 pp.
 CODEN: GWXKX
 DOCUMENT TYPE: Patent
 LANGUAGE: German
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

L4 ANSWER 24 OF 26 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
 CNF C H3 O4 S

Me-O-SO3-

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 1913265	A	19701001	DE 1969-1913265	19690315
US 3671525	A	19720620	US 1970-18692	19700311
CH 530986	A	19730115	CH 1970-530986	19700312
AT 293411	B	19711011	AT 1970-2364	19700313
GB 1293634	A	19721018	GB 1970-1293634	19700313
			DE 1969-1913265	A 19690315

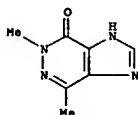
PRIORITY APPLN. INFO.:
 GI For diagram(s), see printed CA Issue.
 AB 1-Substituted 6-pyridazones were treated with alkylating agents to give 26 title compds. (I), some of which were (R, R1, R2, R3, R4, Y, % yield, and m.p. given): Ph, Me, H, NH2, Cl, MeSO4, 86.5, 187-8°; Ph, Me, H, NHAc, Cl, MeSO4, 62.2, 195-6° (MeOH); Ph, Me, H, NH2, piperidino, MeSO4, 60, 260° (perchlorate m. 210°); Ph, Me, H, (R3R4 -) N:CHNH, MeSO4, 94.7, 205-7° (EtOH); Me, Me, H, NH2, Cl, MeSO4, 70, 190-1° (MeOH); Ph, Me, H, NH2, NH2, p-MeC6H4SO3, 90, 238-40° (H2O); Ph, Me, H, NH2, Cl, ClO4, 82, 152-4°; Ph, Me, H, SPh, NH2, ClO4, 63.4, 199-201° (H2O); Ph, Me, H, (R3R4 -) CH:CHCH:CH, ClO4, 72.6, 243-4° (H2O). I are intermediates in the manufacture of dyes, pharmaceuticals, and pesticides. Some I show activity on the central nervous system and against pathogenic fungi and bacteria.
 IT 30067-46-OP
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (preparation of)
 RN 30067-46-0 CAPLUS
 CN 1H-imidazo[4,5-d]pyridazinium, 6,7-dihydro-5-methyl-7-oxo-6-phenyl-, methyl sulfate (9CI) (CA INDEX NAME)
 CM 1
 CRN 46786-14-5
 CNF C12 H11 N4 O



CM 2
 CRN 21228-90-0
 <12/21/2005>

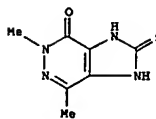
Habte

L4 ANSWER 25 OF 26 CAPLUS COPYRIGHT 2005 ACS on STN
 ACCESSION NUMBER: 1970:498885 CAPLUS
 DOCUMENT NUMBER: 73:98885
 TITLE: Synthesis of pyridazine derivatives. XIII. Synthesis of imidazo-[4,5-d]- and v-triazolo[4,5-d]pyridazine derivatives and reaction of 4-alkoxy-v-triazolo[4,5-d]pyridazines with various amines
 AUTHOR(S): Yanai, Mitsuji; Kinoshita, Toshio; Takeda, Shigeko; Mori, Masatoshi; Sasaki, Hiroshi; Watanabe, Hiroshi
 CORPORATE SOURCE: Fac. Pharm. Sci., Nagasaki Univ., Nagasaki, Japan
 SOURCE: Chemical & Pharmaceutical Bulletin (1970), 18(8), 1685-92
 CODEN: CPBTAL; ISSN: 0009-2363
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 GI For diagram(s), see printed CA Issue.
 AB I (14), II (2), and III (12) (where R1 = H, HO, HS, NH2, MeO, MeS, or EtO; R2 = H, Me, EtO, HO, or Cl; and R3 = H or SH) were prepared via the products from treating 4,5-diaminopyridazines with HCO2H, HCONH2, HC(OR)3-Ac2O, CS2, or NaNO2 in dilute AcOH. The HC(OR)3-Ac2O method also gave 4,5-bis(acetamido)pyridazines. Treating III (R1 = MeO or EtO and R2 = Me, MeO, or EtO) with NH3, NH2NH2, PhCH2NH2, C6H11NH2, Me2NH, HOCH2CH2NH2, piperidine, or morpholine gave fifteen 4- and 1-amino or -hydrazino deriva. Treating III (R1 = Me or MeO and R2 = NHNH2) with HCO2H or Ac2O gave IV (R1 = Me or MeO, R2 = H or Me) having the s-triazolo[4,3-d]-u-triazolo[4,5-d]pyridazine ring system.
 IT 26689-56-7P 26689-59-0P
 RI: SPN (Synthetic preparation); PREP (Preparation) (preparation of)
 RN 26689-56-7 CAPLUS
 CN 4H-Imidazo[4,5-d]pyridazin-4-one, 1,5-dihydro-5,7-dimethyl- (8CI) (CA INDEX NAME)

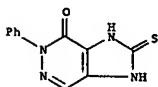


RN 26689-59-0 CAPLUS
 CN 4H-Imidazo[4,5-d]pyridazin-4-one, 1,5-dihydro-2-mercapto-5,7-dimethyl- (8CI) (CA INDEX NAME)

L4 ANSWER 25 OF 26 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



L4 ANSWER 26 OF 26 CAPLUS COPYRIGHT 2005 ACS on STN
 ACCESSION NUMBER: 1969:461312 CAPLUS
 DOCUMENT NUMBER: 71:61312
 TITLE: Pyridazines with tuberculostatic action
 AUTHOR(S): Galstukhova, M. B.; Predvoditeleva, G. S.; Berzina, I. M.; Kartseva, T. V.; Sykova, T. N.; Shukina, M. N.; Pershin, G. N.
 CORPORATE SOURCE: Vses. Khim. Farm. Inst. im. Ordzhonikidze, Moscow, USSR
 SOURCE: Khimiko-Farmatsevticheskii Zhurnal (1969), 3(4), 7-12
 CODEN: KHFZAN; ISSN: 0023-1134
 DOCUMENT TYPE: Journal
 LANGUAGE: Russian
 GI For diagram(s), see printed CA Issue.
 AB Eleven previously described and 4 new 1,4,5-trisubstituted 6(1H)-pyridazinones were prepared and tested for tuberculostatic activity in vitro. Also prepared were 18 asym. thioureas containing an aromatic and a pyridazine ring (Ia). Thus, to excess Ac2O was added 4 g. 1-(p-aminophenyl)-4,5-dibromo-6(1H)-pyridazinone and the mixture heated until solution occurred to give 3 g. 1-(p-acetamidophenyl)-4,5-dibromo-6(1H)-pyridazinone, m. 268-70° (alc.). Boiling 7.67 g. dibromomaleonic acid and 5 g. Et p-hydrazinosalicylate in 50 ml. HOAc 5 hrs. gave 7 g. 1-(3-hydroxy-4-carbethoxyphenyl)-4,5-dibromo-6(1H)-pyridazinone, m. 157-8°. To 5.5 g. 1-phenyl-4-nitro-5-bromo-6(1H)-pyridazinone in 50 ml. HCONMe2 was added 2.34 g. o-ClC6H4NH2 and 1 ml. NEt3 and the mixture heated on a water bath 5 hrs. Adding an equal volume H2O gave 3.6 g. 1-phenyl-4-nitro-5-(o-chlorophenylamino)-6(1H)-pyridazinone (I), m. 173-7° (alc.). Reduction of I with Fe-HCl gave 1-phenyl-4-amino-5-(o-chlorophenylamino)-6(1H)-pyridazinone, m. 233-5° (alc.). The reaction of p-MeOC6H4NCS (I) and 1-phenyl-4,5-diamino-6(1H)-pyridazinone (II) failed to give an asym. thiourea. Thus, to 2 g. II in 15 ml. HCONMe2 was added 1.54 g. I and the mixture heated 80-90° 1 hr. poured into H2O. The resulting precipitate, treated with 5% NaOH, gave 1.0 g. 4,4'-dimethoxycarbanilide, m. 187-8°. Acidification of the NaOH solution gave 1.2 g. 5-phenyl-2-mercapto-1H-imidazo[4,5-d]pyridazin-4(5H)-one, m. 305-7°. A series of Ia was prepared. Thus, to a stirred, boiling solution of 1 g. 3-amino-6-methoxypyridazine (m. 103-5°) in anhydrous C6H6 was gradually added a solution of 1.41 g. p-EtOC6H4NCS and the mixture heated 2 hrs. to give 2 g. 1-(6-methoxy-3-pyridazinyl)-3-(p-ethoxyphenyl)thiourea, m. 201-2°. A 6-butoxy-3-pyridazinyl analog was similarly prepared. Other Ia were similarly prepared. The results of the tuberculostatic activity of the comds. tested in vitro are given in tabular form.
 IT 23215-78-3P
 RI: SPN (Synthetic preparation); PREP (Preparation) (preparation of)
 RN 23215-78-3 CAPLUS
 CN 4H-Imidazo[4,5-d]pyridazin-4-one, 1,2,3,5-tetrahydro-5-phenyl-2-thioxo- (9CI) (CA INDEX NAME)



<12/21/2005>

L4 ANSWER 26 OF 26 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

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